AllFusion™ Endevor® Change Manager

User Guide

4.0

Computer Associates™

ENUSR400

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Chapter 1. Overview

1.1 AllFusion Endevor Change Manager Overview

1.1.1 What Is All Fusion Endevor Change Manager?

AllFusion Endevor Change Manager (referred to in this guide as simply Endevor) is an integrated set of management tools that is used to automate, control, and monitor your applications' development process. Using Endevor, you can:

- Automatically compare and track your changes against production, creating an online change history. This speeds up the debugging process and enables you to always know what was changed, by whom, and why.
- Prevent conflicting changes to the same system component.
- Browse and manipulate all components relating to an application from a single screen, saving you time and ensuring that changes are complete.
- Automate the creation of executables.
- Ensure that the source, executable, and any other output associated with (for example, listings) an element correspond.
- Apply the same procedures (including automating compiles, impact analyses, and standards checking functions) to any component type, dramatically simplifying this process.
- Put change packages and approvals online, eliminating change-related paperwork.
- View or retrieve prior levels of any element.
- Report on element definition, content, and change history.
- Enforce change control procedures.

Endevor is implemented and run under MVS, within the TSO ISPF environment, and in batch.

This manual explains how to use Endevor. This chapter introduces basic Endevor concepts.

Please also note the following product abbreviations in use in this guide:

This product ...	**Is referred to as ...**
AllFusion CA-Panvalet	CA-Panvalet
AllFusion CA-Librarian	CA-Librarian
eTrust CA-ACF2 Security	CA-ACF2
eTrust CA-Top Secret Security	CA-Top Secret

1.2 The Software Life Cycle

1.2.1 Overview

Endevor allows you to automate and control the movement of software through your software life cycle.

Software life cycles are site-specific. A representative life cycle might consist of five stages:

- DEVELOPMENT--Programs are developed.
- TEST--Programs are unit tested.
- QA--Applications are system tested.
- EMERGENCY--Fixes are applied to production code.
- PROD--Production applications are stored.

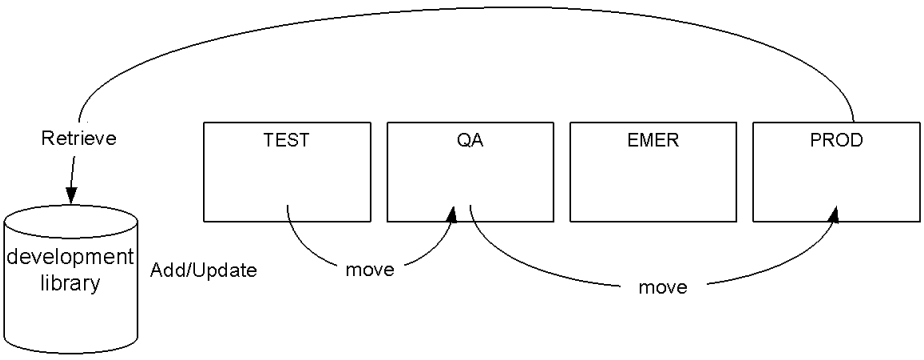
Note: This example illustrates one life cycle. Endevor can be implemented to adapt to any software life cycle requirements.

1.2.2 Basic Operations

Normal change procedures include:

- Retrieving elements from production to a development library.
- Making changes to elements.
- Adding/updating elements in the test stage.
- Moving elements to QA.
- Moving elements back into production.

The following diagram shows normal change procedures in a software life cycle.

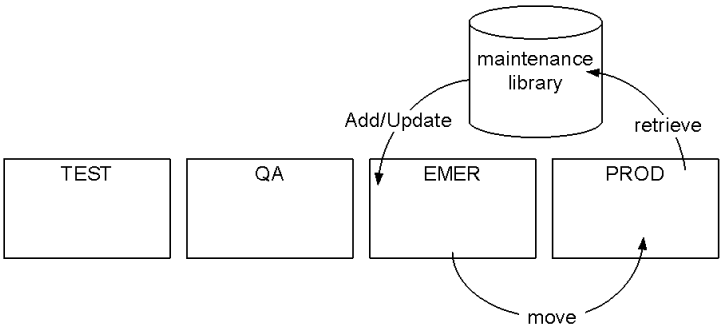


1.2.3 Emergency Operations

Emergency change procedures include:

- Retrieving elements from production.
- Making changes to elements.
- Adding/updating elements into the emergency stage.
- Moving elements to production.

The following diagram illustrates emergency change procedures in a software life cycle.



1.3 Endevor Logical Structure

1.3.1 Overview

Endevor helps to manage the software life cycle by providing a consistent and flexible logical structure for classifying software inventory. There are six components to this inventory structure: environments, stages, systems, subsystems, types, and elements. Environments, stages, systems, subsystems, and types are set up by the Endevor administrator. Users act on elements. These terms are defined below.

This Endevor term	Refers to
Environment	Functional areas within an organization. For example, there might be separate development and production environments. There is no limit to the number of environments that may be defined.
Stage	The stages in the software life cycle. (See the preceding section for an example.) There must be exactly two stages for each environment. Stages have a name, representing their place in the life cycle (for example TEST) and an ID (1 or 2). Stages are referred to in this manual as Stage 1 (the first stage in an environment) and Stage 2 (the second stage in an environment). Stages can be linked together to establish unique promotion routes for program inventory within and between environments. These routes make up the map for a site.
System	The applications at a site. For example, there might be financial and manufacturing applications. A system must be defined to each environment in which it will be used.

This Endevor term	Refers to
Subsystem	A specific application within a system. For example, there might be purchase order and accounts payable applications within the financial system. Keep in mind that: ■ There must be at least one subsystem per system. A subsystem must be defined to each system in which it will be used. For example, if you plan to have subsystem PO within system Finance, and define system Finance to environments TEST, QA, and PROD, then you must also define subsystem PO to system Finance in each environment. ■ A subsystem can have the same name as the system to which you define it.
Type	Categories of source code. For example, you might create the following types: COBOL (for COBOL code); COPYBOOK (for copybooks); or JCL (for JCL streams). You must define a type for each stage, even if the stage won't be used. You can have as many as 99 types for each system and stage. Endevor uses JCL streams called processors to automate creating executables. Endevor invokes a delete, generate, or move processor based on the selected action. The specific processor invoked depends on the processor group associated with the element's type. A processor group identifies: ■ The specific delete, generate, and move processor Endevor should invoke for the element ■ The symbolic overrides for the processors' JCL. For more information, see Creating Executable Forms of Elements, later in this chapter, as well as the *Extended Processors Guide*.

This Endevor term	Refers to
Element	Partitioned data set (PDS or PDS/E) members, CA-Panvalet or CA-Librarian members, or sequential data sets that have been placed under control of Endevor. Generally, the element name is the member name. Each element is classified by system, subsystem, and type. Its environment and stage determine its location in the software life cycle.

1.3.2 Using the Inventory Structure

The Endevor inventory structure allows you to:

- Work with program modules without having to know where they are physically located, or how they are compiled.
- List all the program components that make up an application, regardless of type.
- Determine the location(s) of an element simply by entering the element name on a display screen.
- Act on a cross section of your program inventory. For example, Endevor allows you to list all COBOL code in your shop, or promote an entire new release of the payroll application with a single command.

There are many other ways to use this structure to your advantage.

1.4 Setting Up Endevor

1.4.1 Building the Inventory Structure

The Endevor administrator builds an inventory structure based on the stages in your site's software life cycle. There are six steps in setting up an inventory structure:

1. Determine the stages in the software life cycle.
2. Decide which stages should be put under the control of Endevor.
3. Define two-stage environments based on the decisions in Steps 1 and 2, and link these environments/stages together to form the map.
4. Define applications (systems) for each stage.
5. Define specific applications (subsystems) within each system.
6. Define the types present in each stage and processors for each.

These steps are discussed briefly in the following sections. For details, see the *Administration Guide*.

1.4.1.1 Step 1: Determine Life Cycle Stages

Software life cycles are site-specific. For this example, consider a five-stage life cycle:

DEVELOPMENT	UNITTEST	QA	EMERGENCY	PROD

1.4.1.2 Step 2: Decide Stages for Endevor Control

Your Endevor administrator can decide to put some or all of the stages in your life cycle under control of Endevor. In this example, assume that the last four stages of the life cycle are under the control of Endevor:

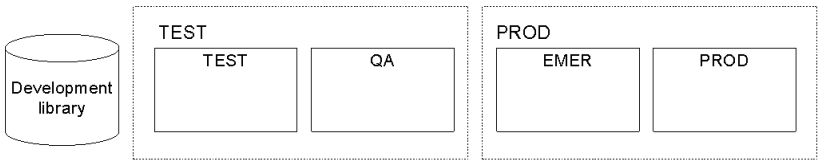
UNITTEST	QA	EMER	PROD

This means that program development takes place outside of Endevor.

While this is a fairly typical life cycle, keep in mind that Endevor can be adapted to any life cycle requirements.

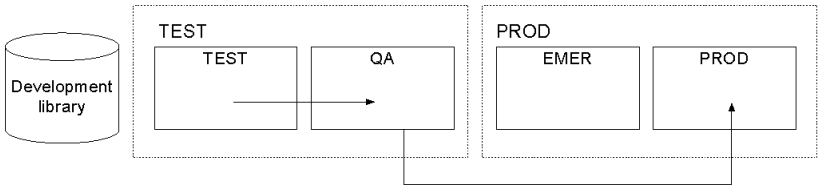
1.4.1.3 Step 3: Define Environments

Environment is the Endevor term for functional areas in your organization. In this example, assume that the TEST and QA stages in the life cycle are part of the development function, and that production applications and their maintenance are part of a function called production. The administrator defines environment TEST to include Stage UNITTEST and QA, and a second environment called PROD, that includes Stage EMERGENCY and Stage PROD. Development activities take place in a development library, outside of Endevor.



1.4.1.4 The Environment Map

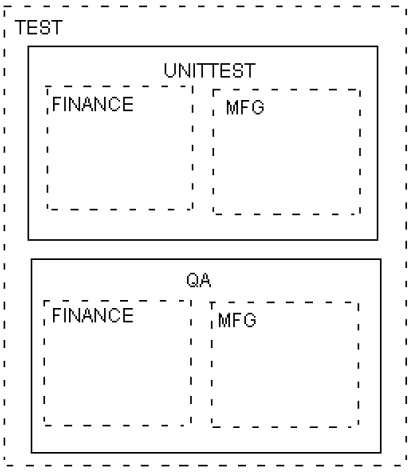
The Endevor administrator might decide to establish the following route for inventory at this site that promotes inventory from Stage TEST to Stage QA to Stage PROD.



Fixes would be moved from Stage EMERGENCY to Stage PROD.

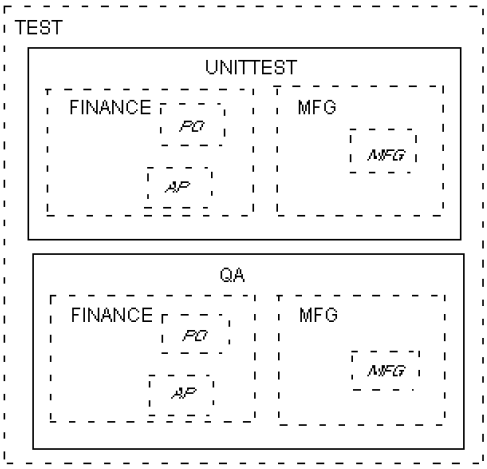
1.4.1.5 Step 4: Define Systems

Your Endevor administrator must define a system to each environment in which it will be used. There are two systems in this example: FINANCE and MFG (manufacturing).



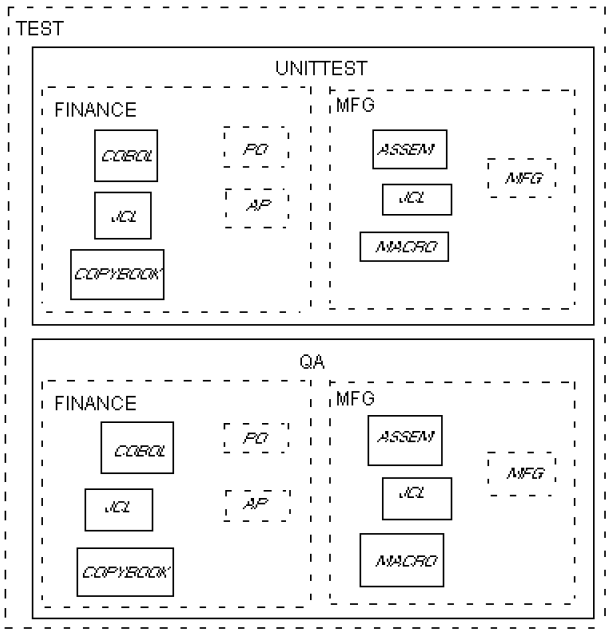
1.4.1.6 Step 5: Define Subsystems

Your Endevor administrator must define at least one subsystem for each system. In addition, he or she must define a particular subsystem to each system in which it will be used. In this example, system FINANCE has two subsystems: PO and AP, and system MFG has one subsystem, MFG.



1.4.1.7 Step 6: Define Types

Your Endevor administrator must define types to each system/stage combination in which you plan to use them. All subsystems defined to a system can use the types defined to that system. In this example, system FINANCE has available the types COBOL (COBOL code), JCL (JCL streams), and COPYBOOK (copybooks). System MFG has available the types ASSEM (Assembler code), JCL, and MACRO (Macros).


TEST
UNITTEST
FINANCE
COBOL
JCL
COPYBOOK
PO
AP
MFG
ASSEM
JCL
MACRO
MFG
QA
FINANCE
COBOL
JCL
COPYBOOK
PO
AP
MFG
ASSEM
JCL
MACRO
MFG

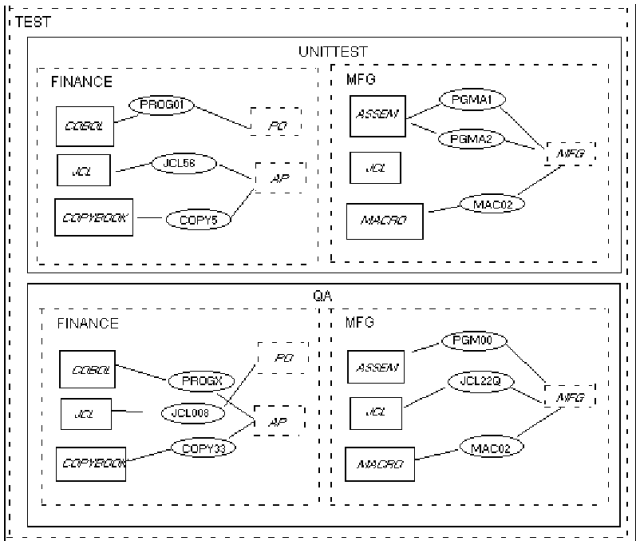
1.5 Classifying Elements

1.5.1 Overview

Endevor classifies elements according to the inventory structure your Endevor administrator sets up. Each element is described uniquely in terms of its:

- Location in the software life cycle, determined by the environment and stage where it resides.
- Inventory classification, determined by the system, subsystem, and type with which it is associated.

This is illustrated by the following diagram.



For example, in this diagram:

This module	Is located in	Is classified as
PROG01	Environment TEST Stage UNITTEST	Type COBOL Subsystem PO System FINANCE
JCL22Q	Environment TEST Stage QA	Type JCL Subsystem MFG System MFG
COPY33	Environment TEST Stage QA	Type COPYBOOK Subsystem AP System FINANCE

1.5.2 Querying the Endevor Structure

The Endevor classification scheme allows users to produce lists of elements by environment, stage, system, subsystem, type, or any combination of these categories. For example, using the preceding example, you could query the system for the following lists:

This query	Produces
Show me all the JCL in the shop	JCL56 JCL008 JCL22Q
Show me all the software currently in QA	PROGX JCL008 COPY33 PGM00 JCL22Q MAC02
Show me all the manufacturing software currently being unit tested	PGMA1 PGMA2 MAC02

1.6 Working with Elements

1.6.1 About Endevor Actions

You manipulate Endevor inventory by executing commands called *actions*. Some actions are available in both foreground and in batch, while others are available only in batch. Batch actions are also available when you build packages.

- This manual explains how to execute actions in foreground and submit batch action requests.
- The *SCL Reference Guide* contains the syntax for Endevor's Software Control Language (SCL). SCL allows you to code Endevor batch action requests.

The following table summarizes Endevor actions and identifies whether they can be executed in foreground, batch, or both.

This action...	Is available in...	And does this...
Add	Foreground / Batch	Puts an external data set member under Endevor's control.
Archive	Batch	Writes the current version of an element to a sequential data set.
Copy	Batch	Copies an element from an archive data set to a data set external to Endevor.
Delete	Foreground / Batch	Erases base and delta forms of an element and removes related information from a Master Control File.
Display	Foreground	Displays information about an element.
Generate	Foreground / Batch	Creates an executable form of an element.
List	Batch	Creates a list of elements that meet specific selection criteria. One effective use of this function is to perform impact analysis.
Move	Foreground / Batch	Moves elements between stages, within or across environments.
Print	Foreground / Batch	Prints element or member information.

This action...	Is available in...	And does this...
Restore	Batch	Restores elements to Endevor from an archive data set.
Retrieve	Foreground / Batch	Copies elements from Endevor to an external data set.
Signin	Foreground / Batch	Removes the user signout associated with an element.
Transfer	Batch	Moves elements between locations that are not on the same map route.
Update	Foreground / Batch	Updates an element from an external data set.

1.6.2 Actions by Job Function

A typical site might include the following job functions:

- Development
- QA/Test
- Turnover
- Auditing
- Management
- Endevor administration

The table below summarizes, for each job function, the actions that someone might perform:

Action	Dev	QA/Test	Turnover	Auditing	Mgmnt	Admin
Add/ Update	x	x				x
Archive						x
Copy						x
Delete			x			x
Display	x	x	x	x	x	x
Generate	x					
List	x			x		x
Move	x	x	x			x
Print	x	x	x	x	x	x

Action	Dev	QA/Test	Turnover	Auditing	Mgmnt	Admin
Restore						x
Retrieve	x	x				x
Signin	x	x			x	
Transfer			x			x

1.6.3 Reporting

Endevor provides a full set of standard reports, as well as the capability to create custom API reports. For more information, see the *Reports Guide* and the *API Guide*.

1.6.4 Source and Output Management

As it executes each action request, Endevor categorizes the processing as source management or output management.

- Source management deals with that aspect of processing that maintains the element source and MCF definitions; that is, updates to the Master Control File and to the base and delta libraries.
- Output management relates to any processing that creates or maintains data sets related to the element being processed. These data sets include the source output libraries, processor listing and load libraries (applicable for element type PROCESS only), user-defined libraries, and Include libraries.

1.6.5 Creating Executable Forms of Elements

Endevor uses OS JCL streams called processors to create executable forms of source code, including source modules, object modules, load modules, and listings. There are three kinds of processors:

- Generate processors execute when an element is added or updated in Stage 1, or generated in either stage. Optionally, generate processors execute when an element is restored or transferred to Endevor from an archive data set. Typically, the generate processor creates an executable form of the element, together with any associated outputs (such as listings).
- Delete processors execute when an element is deleted, transferred, moved, or archived. Generally, the delete processor deletes any output that was created by the corresponding generate processor.
- Move processors move elements from one stage in the life cycle to another. Move processors generally copy all the output previously created for the element, or re-create those outputs in the target stage.

A processor group identifies the specific generate, delete, and move processor Endevor should use to process a particular element type. It also specifies the symbolic overrides that Endevor should use in the processors' JCL. So, for example, you can

write a set of processors for your assembly language programs, combine those processors into one processor group, and then associate that group with element type ASM. For details about processors, see the *Extended Processors Guide*.

Note: If you move or transfer an element from one processor group to another, Endevor executes the delete processors associated with the source location, not the target location.

1.6.6 Audit Stamps

Endevor can place an encrypted audit stamp, called a footprint, in the output source, object, or load modules that are created by processors. The footprint provides an integrity check between the source form of an element and its executable form. (For more information about footprints, see the *Footprints Guide*.)

1.6.7 Packages

Endevor packages allow you to formalize your use of actions by:

- Creating sets of actions that can be tracked, maintained, and reused as a unit.
- Establishing approval procedures for packages. For information on approver groups, see the *Packages Guide*.
- Centralizing package locations, facilitating their reuse across environments.
- Shipping packages to remote locations.

For more information on packages, see the *Packages Guide*.

1.6.8 Element Registration

The element registration feature enables you to choose whether you want to allow the use of duplicate element names. Duplicate element names can be problematic if both elements are written to the same library. However, there are situations in which they are desirable—for example, when the same element name is used for a program as well as its JCL.

To account for both situations, Endevor provides two options that enable you to allow or disallow duplicate element names. One option enables you to control the use of duplicate element names at the system and subsystem level. The other option enables you to control the use of duplicate element names at the processor group level. You can implement one or both of these options as described below.

1.6.8.1 Controlling Duplicate Element Names at the System and Subsystem Level

The element registration feature enables you to control whether duplicate element names are allowed across subsystems within the same system. During action processing, when the processor group associated with the element is validated, Endevor checks the element registration option to see if duplicate element names are allowed. When element registration is enabled, if Endevor finds two elements that have the same name, and which exist in different subsystems of the same system, Endevor issues a message and optionally terminates action processing.

The System Definition panel parameter DUPLICATE ELEMENT NAME CHECK governs the status of element registration at the system and subsystem level. To activate the checking of duplicate names at the system and subsystem level, enter a Y in this field, which is highlighted in the example below:

```
---------------------------- SYSTEM DEFINITION ---------------------------------
COMMAND ===>

CURRENT ENV:  SMPLTEST         NEXT    ENV:     SMPLPROD
SYSTEM:           ADMIN        NEXT SYSTEM ===> ADMIN
SYSTEM TITLE ===> ENDEVOR ADMINISTRATION APPLICATIONS
UPDATED:          15OCT01 14:36 BY USER007

GENERAL OPTIONS:
   COMMENT ===> Y (Y/N)      CCID ===> Y (Y/N) REQ ELM JUMP ACK ===> Y (Y/N)
ELEMENT REGISTRATION OPTIONS:
   DUPLICATE ELEMENT NAME CHECK   ===> Y (Y/N) MSG SEVERITY LVL ===> E (W/C/E)
   DUPLICATE PROC O/P TYPE CHECK  ===> N (Y/N) MSG SEVERITY LVL ===>   (W/C/E)

SIGN-IN/SIGN-OUT OPTIONS:
   ACTIVATE OPTION      ===> Y (Y/N)
   VALIDATE DATA SET    ===> N (Y/N)

PROCESSOR TRANSLATION OUTPUT LIBRARIES:
   STAGE 1 LOAD LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLOAD
   STAGE 1 LIST LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLIST
   STAGE 2 LOAD LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLOAD
   STAGE 2 LIST LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLIST
--------------------------------------------------------------------------------
```

Once you have activated element registration at the system and subsystem level, you must indicate the action you want Endevor to take upon encountering two identically named elements. This is done by setting the MSG SEVERITY LVL parameter next to the DUPLICATE ELEMENT NAME CHECK parameter in the System Definition panel, shown in the previous example. You can specify the following parameter values:

Value	Description
E (Error)	The same element name exists within another subsystem under the same system. The action is terminated, and an error message is issued.
C (Caution)	The same element name exists within another subsystem under the same system. The action is performed, and a caution message is issued.
W (Warning)	The same element name exists within another subsystem under the same system. The action is performed, and a warning message is issued.

Note: Make sure that you select the same message severity level for the system in each environment in which it appears. If you do not, element actions may behave in an unpredictable manner. Similarly, if you activate element registration for a system, make sure that you activate it in each environment in which it appears.

1.6.8.2 Controlling Duplicate Element Names at the Processor Group Level

The element registration feature also enables you to control whether elements that have the same name and processor output type can exist within the same system. Through the use of the new processor output type field, described later in this section, you have the ability to classify the type of output produced by a processor group.

When element registration is enabled at the processor group level, Endevor performs an additional check during action processing; namely, if an element that already exists within the system has the same processor output type as the element being acted upon, Endevor issues a message and optionally terminates action processing.

To activate this option, you need to set the appropriate parameter in the System Definition panel. Then, you must define the output type for the processor group. Both tasks are described below.

The System Definition panel parameter DUPLICATE PROC O/P TYPE CHECK governs the status of element registration at the processor group level. To activate the checking of duplicate processor output types, enter a Y in this field, which is highlighted in the example below:

```
---------------------------- SYSTEM DEFINITION ------------------------------
COMMAND ===>

CURRENT ENV:  SMPLTEST         NEXT    ENV:     SMPLPROD
SYSTEM:           ADMIN        NEXT SYSTEM ===> ADMIN
SYSTEM TITLE ===> ENDEVOR ADMINISTRATION APPLICATIONS
UPDATED:          15OCT01 14:36 BY USER007

GENERAL OPTIONS:
   COMMENT ===> Y (Y/N)      CCID ===> Y (Y/N) REQ ELM JUMP ACK ===> Y (Y/N)
ELEMENT REGISTRATION OPTIONS:
   DUPLICATE ELEMENT NAME CHECK   ===> N (Y/N) MSG SEVERITY LVL ===>   (W/C/E)
   DUPLICATE PROC O/P TYPE CHECK  ===> Y (Y/N) MSG SEVERITY LVL ===> W (W/C/E)

SIGN-IN/SIGN-OUT OPTIONS:
   ACTIVATE OPTION      ===> Y (Y/N)
   VALIDATE DATA SET    ===> N (Y/N)

PROCESSOR TRANSLATION OUTPUT LIBRARIES:
   STAGE 1 LOAD LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLOAD
   STAGE 1 LIST LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLIST
   STAGE 2 LOAD LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLOAD
   STAGE 2 LIST LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLIST
-------------------------------------------------------------------------------
```

Once you have activated element registration at the processor group level, you must indicate the action you want Endevor to take upon encountering two elements in the same system that have the same processor output type. This is done by setting the MSG SEVERITY LVL parameter located next to the DUPLICATE PROC O/P TYPE CHECK parameter, shown in the previous example. You can specify the following parameter values:

Value	Description
E (Error)	The same element name and same output type exist within the same system and different type. The action is terminated, and an error message is issued.
C (Caution)	The same element name and same output type exist within the same system and different type. The action is performed, and a caution message is issued.
W (Warning)	The element name already exists within the same system and has the same processor output type associated with it. The action is performed, and a warning message is issued.

Note: Make sure that you select the same message severity level for the system in each environment in which it appears. If you do not, element actions may behave in an unpredictable manner. Similarly, if you activate element registration for a system, make sure that you activate it in each environment in which it appears.

After you have enabled element registration at the processor group level and selected the message severity level, you need to define the output type. The default output type is a concatenation of the element type and processor group names. Using the default value will ensure that there are no registration conflicts.

Alternately, you can define the output type using the Processor Group Definition panel. The output type field, PROCESSOR O/P TYPE, supports up to 16 characters.

In the following example, we use LOADMODULE as the output type for the generate processor. The output type is copied to the element catalog record segment when the element is added or updated.

```
DISPLAY ----------------  PROCESSOR GROUP DEFINITION  -------------------------
COMMAND ===>

CURRENT ENV:  I40        STAGE ID:  1   SYSTEM:  NDVRMVS    TYPE:  ASMPGM
NEXT    ENV:  I40        STAGE ID:  2   SYSTEM:  NDVRMVS    TYPE:  ASMPGM

PROCESSOR GROUP:     ASMIRUAL      PROCESSOR O/P TYPE: LOADMODULE
DESCRIPTION:         INTERNAL - ASSEM REUSABLE AUTHORIZED
NEXT PRCS GROUP:     ASMIRUAL

UPDATED:             13MAR01 11:06 BY USER001

----------------------  OUTPUT MANAGEMENT INFORMATION  ----------------------

PROCESSOR TO USE FOR MOVE     ACTION:     G (M/G)
PROCESSOR TO USE FOR TRANSFER ACTION:     G (M/G)

       S - Browse Symbolics                   L - List Processor

                                      FOREGROUND EXECUTION
   GENERATE PROCESSOR:     GASM         :     Y (Y/N)
   DELETE PROCESSOR:       DPDSMBR      :     Y (Y/N)
   MOVE PROCESSOR:         *NOPROC*     :     Y (Y/N)
```

You can implement the processor group option for selected inventory. For the inventory that should not be checked, leave the output value as it is originally set; that is, a concatenation of the element type and processor group names. Using the default value will ensure that there are no registration conflicts.

1.7 Security

1.7.1 Security Options

Endevor provides two functional security options:

- A native security facility
- The Endevor External Security Interface (Endevor ESI)

A native security facility comes with Endevor. It enables you to secure Endevor functions (access and actions) by using security tables. For more information, see the *Security Guide*.

The External Security Interface is an optional feature of Endevor that enables you to secure Endevor functions through the MVS Security Access Facility (SAF) and in conjunction with the installation security package on your system. Endevor ESI does this by allowing you to define the rules for function security in your installation security package (IBM RACF, CA-ACF2, CA-Top Secret) rather than in the native tables supplied with Endevor. For more information on enabling and using Endevor ESI, see the *Security Guide*.

1.7.2 Endevor and Data Set Security

Endevor does not provide data set security. Data set security is performed by an installation security package, such as:

- IBM RACF
- CA-ACF2
- CA-Top Secret

Computer Associates recommends that you implement data set security to prevent unauthorized access to the data sets controlled by Endevor. For information on how to accomplish this using your installation security package, see the *Security Guide*.

1.8 Other Capabilities

1.8.1 Endevor and Other Products

Using other Computer Associates products, Endevor can provide:

- Configuration management, using the Endevor Automated Configuration Manager (ACM). For more information, see the *Automated Configuration Option Guide*.
- Parallel development controls using the Endevor Parallel Development Manager (PDM). For more information, see the *Parallel Development Option Guide*.
- Automated coordination of all DB2 processes, using Endevor DB2 Application Manager. For more information, see the *Endevor for DB2 Administrator Guide*.
- Footprint synchronization at remote sites. For more information, see the *Footprints Guide*.
- Interfaces to:
  - IBM's Information/Management System. For more information, see the *Interface for IBM Information/Management Administration Guide*.
  - CA-Roscoe. For more information, see the *Interface for CA-Roscoe Guide*.
  - CA-Panvalet and CA-Librarian.
  - CA-Netman

In addition, using Endevor workstation products, you can develop applications on workstations, then move the applications to Endevor using Endevor Link.

1.9 Documentation Overview and Conventions

This manual is part of a comprehensive documentation set that fully describes the features and functions of Endevor and explains how to perform everyday tasks. For a complete list of Endevor manuals, see the PDF Table of Contents file in the PDF directory, or the Bookmanager Bookshelf file in the Books directory.

1.9.1 Conventions Used in the Manual

This manual refers throughout to panel fields, values that may be entered in these fields, and certain keys that you use frequently. The following conventions are used with these values, as follows:

Convention	Example
Some panel fields appear in a character style and size that is different than the standard text	Use the OPTION field to select the processing you want to perform.
Field values appear in **bold** letters	Type an **S** (display), **#** (delete), or **U** (update) in this field.
Keys appear in capital letters	To return to the System Request Panel, press END.

1.10 Name Masking

A name mask allows you to specify all names, or all names beginning with a particular string, to be considered when performing an action.

Name masks are valid on:

- Element names
- System, subsystem, and type names within FROM clauses
- Report syntax
- ISPF panels
- API requests

Name masks are not valid on:

- Environment names
- Element names in the following situations:
  - When entering a LEVel in a statement
  - When using the MEMber clause with a particular action
  - When building a package

1.10.1 Usage

There are three ways to mask names: by using the wildcard character (*), by using the placeholder character (%), and by using both together.

The wildcard (*) can be used in one of two ways to specify external file names:

- When coded as the only character of a search string, Endevor returns all members of the search field. For example, if you coded the statement ADD ELEMENT *, all elements would be added.
- When coded as the last character of a search string, Endevor returns all members of the search field beginning with the characters in the search string preceding the wildcard. For example, the statement ADD ELEMENT UPD* would add all elements beginning with "UPD", such as UPDATED or UPDATE.

Note: You cannot use more than one wildcard in a string. The statement ADD ELEMENT U*PD* would result in an error.

The placeholder (%) can also be used in one of two ways:

- When coded as the last character in a string, Endevor returns all members of the search field, beginning with the characters in the search string preceding the placeholder, but which have no more characters than were coded in the search string. If you coded the statement ADD ELEMENT UPD%, only those elements

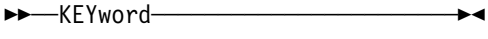
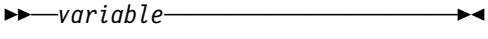
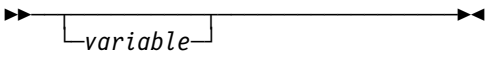
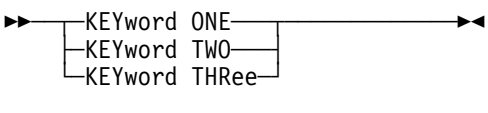
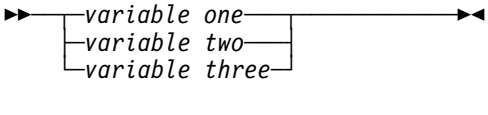
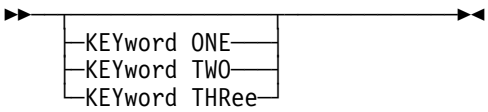
with four-character-long names beginning with "UPD" (UPD1 or UPDA, for example) would be added.

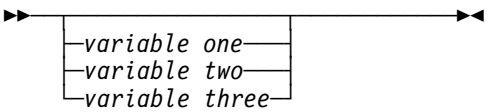
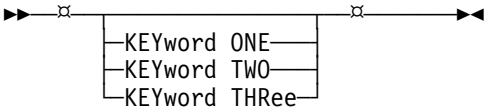
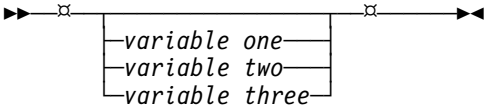
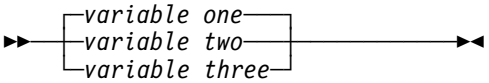
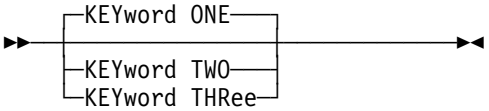
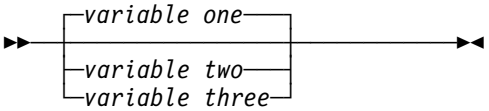
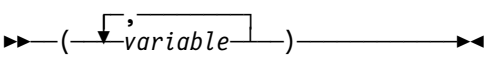
- It is also possible to use the placeholder multiple times in a single search string. The statement ADD ELEMENT U%PD% would return all elements with five-character-long names that have U as the first character, and PD third and fourth.

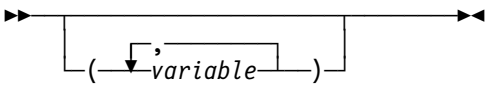
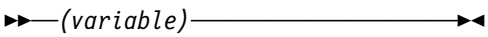
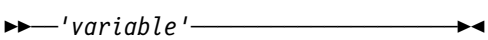
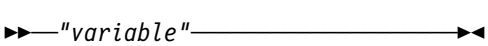
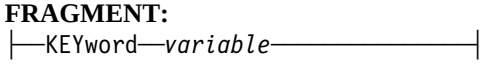
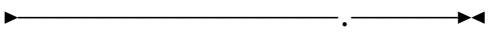
The wildcard and the placeholder can be used together, provided that the wildcard appears only at the end of the search string and is used only once. An example of a statement using both the wildcard and the placeholder is ADD ELEMENT U%D*. This statement would add elements with names of any length that have U as the first character and D as the third.

1.11 Syntax Conventions

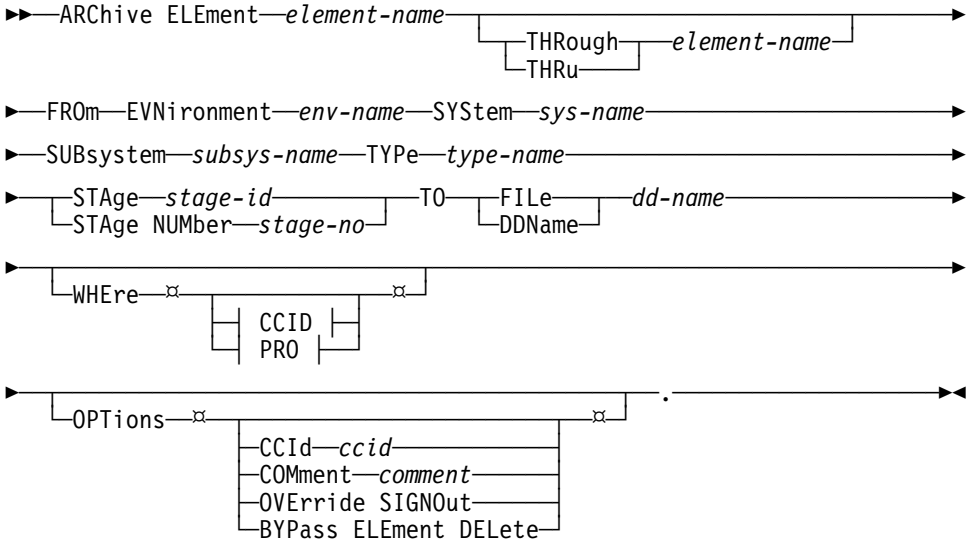
Endevor uses the IBM standard for representing syntax. The following table explains the syntax conventions:

Syntax	Explanation
	Represents the beginning of a syntax statement.
	Represents the end of a syntax statement.
	Represents the continuation of a syntax statement to the following line.
	Represents the continuation of a syntax statement from the preceding line.
	Represents a required keyword. Only the uppercase letters are necessary.
	Represents a required user-defined variable.
	Represents an optional keyword. Optional keywords appear below the syntax line. If coded, only the uppercase letters are necessary.
	Represents an optional user-defined variable. Optional variables appear below the syntax line.
	Represents a choice of required, mutually exclusive keywords. You must choose one and only one keyword.
	Represents a choice of required, mutually exclusive, user-defined variables. You must choose one and only one variable.
	Represents a choice of optional, mutually exclusive keywords. Optional keywords appear below the syntax line.

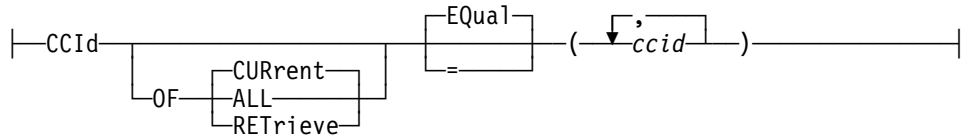
Syntax	Explanation
	Represents a choice of optional, mutually exclusive, user-defined variables. Optional variables appear below the syntax line.
	Represents a choice of optional keywords. The stars (¤) indicate that the keywords are not mutually exclusive. Code no keyword more than once.
	Represents a choice of optional user-defined variables. The stars (¤) indicate that the variables are not mutually exclusive. Code no variable more than once.
	Represents a choice of required, mutually exclusive keywords, one of which is the default. In this example, KEYword ONE is the default keyword because it appears above the syntax line.
	Represents a choice of required, mutually exclusive, user-defined variables, one of which is the default. In this example, *variable one* is the default variable because it appears above the syntax line.
	Represents a choice of optional, mutually exclusive keywords, one of which is the default. In this example, KEYword ONE is the default keyword because it appears above the syntax line.
	Represents a choice of optional, mutually exclusive, user-defined variables, one of which is the default. In this example, *variable one* is the default variable because it appears above the syntax line.
	Represents a required variable that can be repeated. Separate each occurrence with a comma and enclose any and all variables in a single set of parenthesis.

Syntax	Explanation
	Represents an optional variable that can be repeated. Separate each occurrence with a comma and enclose any and all variables in a single set of parenthesis.
	Represents a variable which must be enclosed by parenthesis.
	Represents a variable which must be enclosed by single quotes.
	Represents a variable which must be enclosed by double quotes.
	Represents a reference to a syntax fragment. Fragments are listed on the lines immediately following the required period at the end of each syntax statement.
FRAGMENT: 	Represents a syntax fragment.
	Represents the period required at the end of all syntax statements.

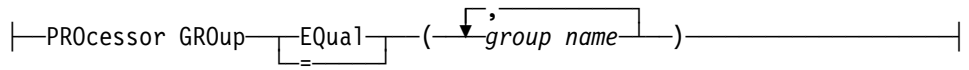
1.11.1 Sample Syntax Diagram



CCID:



PRO:



1.11.2 Syntax Diagram Explanation

Syntax	Explanation
ARChive ELEment *element-name*	The keyword ARChive ELEment appears on the main line, indicating that it is required. The variable *element-name*, also on the main line, must be coded.
THRough / THRu *element-name*	The keywords THRough and THRu appear below the main line, indicating that they are optional. They are also mutually exclusive.
FROm ENVironment ... TYPe *type-name*	Each keyword and variable in this segment appear on the main line, indicating that they are required.
STAge *stage-id* / STAge NUMber *stage-no*	The keywords STAge and STAge NUMber appear on and below the main line, indicating that they are required, mutually exclusive keywords.

Syntax	Explanation
TO ... *dd-name*	The keyword TO appears on the main line, indicating that it is required. The keywords FILe and DDName appear on and below the main line, indicating that they are required, mutually exclusive keywords. The variable *dd-name* also appears on the main line, indicating that it is required.
WHEre clause	This clause appears below the main line, indicating that it is optional. The keyword WHEre appears on the main line of the clause, indicating that it is required. CCID and PRO are syntax fragments that appear below the main line, indicating that they are optional. The stars (¤) indicate that they are not mutually exclusive. For details on the CCID and PRO fragments, see the bottom of this table.
OPTion clause	This clause appears below the main line, indicating that it is optional. The keyword OPTion appears on the main line of the clause, indicating that it is required. The keywords CCId, COMment, OVErride SIGNOut, and BYPass ELEment DELete all appear below the main line, indicating that they are optional. The stars (¤) indicate that they are not mutually exclusive.
CCID fragment	The keyword CCId appears on the main line, indicating that it is required. The OF clause appears below the main line, indicating that it is optional. If you code this clause, you must code the keyword OF, as it appears on the main line of the clause. CURrent, ALL, and RETrieve appear above, on, and below the main line of the clause, indicating that they are required, mutually exclusive keywords. CURrent appears above the main line, indicating that it is the default. If you code the keyword OF, you must choose one and only one of the keywords. The keywords EQual and = appear above and below the main line, indicating that they are optional, mutually exclusive keywords. EQual appears above the main line, indicating that it is the default. You can include only one. The variable *ccid* appears on the main line, indicating that it is required. The arrow indicates that you can repeat this variable, separating each instance with a comma. Enclose any and all variables in a single set of parenthesis.

Syntax	Explanation
PRO fragment	The keyword PROcessor GROup appears on the main line, indicating that it is required. The keywords EQual and = appear on and below the main line, indicating that they are required, mutually exclusive keywords. You must include one. The variable *group name* appears on the main line, indicating that it is required. The arrow indicates that you can repeat this variable, separating each instance with a comma. Enclose any and all variables in a single set of parenthesis.

1.11.3 General Coding Information

In coding syntax, you must adhere to certain rules and guidelines regarding valid characters, incompatible commands and clauses, and ending statements. In addition, knowing how the SCL parser processes syntax will help you resolve errors and undesired results. The following sections outline these rules and guidelines.

1.11.3.1 Valid Characters

The following characters are allowed when coding syntax:

- Uppercase letters
- Lowercase letters
- Numbers
- National characters
- Hyphen (-)
- Underscore (_)

The following characters are allowed when coding syntax, but must be enclosed in either single (') or double (") quotation marks:

- Space
- Tab
- New line
- Carriage return
- Comma (,)
- Period (.)
- Equal sign (=)
- Greater than sign (>)
- Less then sign (<)

- Parenthesis ( )
- Single quotation marks
- Double quotation marks

A string containing single quotation marks must be enclosed in double quotation marks. A string containing double quotation marks must be enclosed in single quotation marks.

To remove information from an existing field in the database, enclose a blank space in single or double quotation marks. For example, the following statement removes the default CCID for user TCS:

```
DEFINE USER TCS
DEFAULT CCID " ".
```

The characters "*" and "%" are reserved for name masking. See the section “Name Masking” for more information.

1.11.3.2 Incompatible Commands and Clauses

The following commands and clauses are mutually exclusive:

- THRough and MEMber clauses within any action except LIST
- Endevor location information (environment, system, subsystem, type, and stage) and data set names (DSName)
- File names (DDName) and data set names (DSName)
- The stage id (STAge / STAge ID) and the stage number (STAge NUMber)
- The SET TO Endevor location information and the SET TO MEMber clause

1.11.3.3 Ending A Statement

You must enter a period at the end of each statement. If no period is found, you receive an error message and the job terminates.

1.11.3.4 SCL Parsing Information

- The SCL parser does not look for information in columns 73-80 of the input. Therefore, be sure that all relevant information is coded in columns 1-72.
- The SCL parser does not catch duplicate clauses coded for an SCL request. If you code the same clause twice, SCL uses the Boolean "AND" to combine the clauses. If the result is invalid, you receive an error message.
- If you enter an asterisk (*) in column 1, the remainder of the line is considered a comment by the SCL parser and is ignored during processing.
- Any value found to the right of the period terminating the SCL statement is considered a comment by the SCL parser and is ignored during processing.

1.11.3.5 SCL Continuation Syntax Rules

All SCL parameters that span multiple lines must be enclosed in single quotes. SCL keyword parameters cannot span multiple lines—only the parameter values. The syntax required to span a paramter value should lead with an apostrophe or quotation mark at the beginning of the specification and a trailing apostrophe or quotation mark of the value. Spaces that are not surrounded by non-blank characters will not be included in the text string. Example:

```
ADD ELEMENT 'Spanned
 ElementName'  CCID 'This is the chan
  ge control number'
```

This would result in an element value of "SpannedElementName" and a CCID value of "This is the change control number".

Chapter 2. Endevor Basics

2.1 Overview

2.1.1 About This Chapter

Endevor is implemented and run under a valid supported IBM operating system, either in the TSO ISPF environment or in batch. In ISPF, it makes use of standard ISPF facilities whenever possible. The sections on using Endevor panels, getting help, and keyboard functions show you how to navigate through Endevor.

The section on documentation conventions summarizes the standards used for presenting different types of information (for example, flow charts, field values, program syntax) in this and other Endevor manuals.

2.2 Keyboard Functions

2.2.1 Overview

From any Endevor ISPF panel, you can use standard ISPF commands and function keys. (For more information on the commands or key assignments, see your ISPF documentation.)

2.2.2 ISPF Commands and Function Keys

The ISPF commands and function keys you can use are shown below:

Command	Key Usually Assigned	Used to:
ENTER	ENTER	Process the panel.
REFRESH	PA2	Refresh the screen.
HELP	PF1	Expand the abbreviated message displayed in the upper right.
END	PF3	Return to the previous logical panel. From the (highest level) Endevor Primary Options Menu panel, return to ISPF or TSO, as appropriate.
RETURN	PF4	Return to the ISPF Primary Option Menu. See the section Using the RETURN and JUMP Commands for more information.
UP	PF7	Scroll up one page to see lines that are not visible at the top of the panel.
DOWN	PF8	Scroll down one page to see lines that are not visible at the bottom of the panel.
LEFT	PF10	Scroll left.
RIGHT	PF11	Scroll right.

2.2.3 Using the RETURN and JUMP Commands

Individual users can instruct Endevor how to handle ISPF RETURN and JUMP commands. To do so, you provide a value in the INTERCEPT ISPF RETURN CMD field on the Endevor User Defaults panel. (See Chapter 3, "Setting User Defaults and Options".)

Specify **N** (no; default) if you do not want Endevor to intercept ISPF RETURN (usually PF4) and JUMP commands. When this option is set to N and you use the RETURN (usually PF4) or JUMP command, Endevor terminates and the ISPF Primary Option Menu appears.

Specify **Y** (yes) if you want Endevor to intercept RETURN and JUMP command processing. When this option is set to Y and you use the RETURN (usually PF4) or JUMP command, the Endevor Primary Options Menu appears rather than the ISPF Primary Option Menu.

2.2.3.1 Usage Notes

Keep the following points in mind when using RETURN or JUMP commands. These notes also apply to PF key assignments and the equal (=) command.

1. If you use RETURN (usually PF4) or JUMP (=) from the Endevor Primary Options Menu, the ISPF Primary Option Menu appears.
2. When INTERCEPT ISPF RETURN =Y, and you use the RETURN or JUMP command from any Endevor panel other than the Endevor Primary Options Menu, the Endevor Primary Options Menu appears. You can specify any string of options from there.
3. END (PF3) processing is unaffected. The Environment Selection panel displays when you use the END command from the Endevor Primary Options Menu.
4. If you use the JUMP command from within Endevor when INTERCEPT ISPF RETURN = Y, any command you use after the equal sign (=) will be ignored by ISPF. In other words, if you use JUMP from any panel in the Endevor dialog *other than* the Endevor Primary Options Menu, the Primary Options Menu appears.

   Note: If you use JUMP from the Endevor Primary Options Menu, you will jump to the desired application, regardless of the INTERCEPT ISPF RETURN option setting.

2.2.4 Exiting Endevor

There are several ways to exit Endevor. To terminate the Endevor dialog, you can do the following:

- Type X in the OPTION field on the Endevor Primary Options Menu to terminate Endevor immediately.
- When CANCEL RETURN =N, use RETURN or JUMP from any Endevor panel to terminate Endevor immediately.
- When CANCEL RETURN =N or Y, use RETURN or JUMP from the Endevor Primary Options Menu to terminate Endevor immediately.
- Type END in the OPTION field on the Endevor Primary Options Menu, then type END, RETURN or JUMP in the OPTION field on the Environment Selection panel.

2.3 Getting Help

2.3.1 Overview

Endevor provides three kinds of help:

- Panel help
- Message help
- Tutorials

2.3.2 Panel Help

To access help text about a panel, press HELP (PF1) when the panel is displayed, then press ENTER.

2.3.3 Message Help

Endevor system messages display to the far right on the first line of a panel. If this abbreviated message is not enough, press HELP (PF1) to expand the message into a full line. The full message displays on the third line of the panel. If you press HELP (PF1) again when a message is displayed, you access panel help.

2.3.4 Foreground Execution Report Message

After you execute a foreground processing request, Endevor sometimes displays the message:

Browse *userid*.C1TEMPR*n*.E*sysid*.MSGS

where *userid*.C1TEMPR*n*.E*sysid*.MSGS is the name of the file containing the Execution Report for the requested action. The *userid* statement in the file name will be your ISPF user ID, and the *n* statement will be a system-assigned number between 1 and 9. The *sysid* will be the TSO system on which Endevor is executing.

To view the Execution Report, type **MSGS** in the COMMAND field or use the ISPF Browse facility.

To view the Execution Report automatically whenever the return code from an action is greater or equal to a threshold value, enter the threshold in the DISPLAY MSGS WHEN RC GE field of the Endevor User Defaults panel. Whenever the return code from the action processing is greater than or equal to this threshold value, Endevor automatically displays the Execution Report file.

2.3.5 Tutorials

To access the Endevor tutorials, type **T** in the OPTION field on the Endevor Primary Options Menu and press ENTER.

2.4 The Primary Options Menu

2.4.1 Overview

The Primary Options Menu is the first panel Endevor displays once you have chosen an environment. The selected environment's name appears in the CURRENT ENVIRONMENT field.

This section summarizes the options available on this menu, and refers you to detailed discussions of the option in the Endevor documentation.

```
---------------  AllFusion Endevor Primary Options Panel  ----------------------
Option ===>

  0   DEFAULTS      - Specify Endevor ISPF default parameters
  1   DISPLAY       - Perform Display functions
  2   FOREGROUND    - Execute Foreground Actions
  3   BATCH         - Perform Batch Action processing
  4   ENVIRONMENT   - Define or Modify Environment information
  5   PACKAGE       - Perform Foreground Package processing
  6   BATCH PACKAGE - Perform Batch Package SCL Generation
  U   USER MENU     - Display user option menu
  T   TUTORIAL      - Display information about Endevor
  C   CHANGES       - Display summary of changes for this release of Endevor
  X   EXIT          - Exit the Endevor dialog



                        Current environment: Q40

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Use the EXIT option to terminate Endevor
```

2.4.2 Available Options

The following list summarizes the options available on the Primary Options Menu.

Note: For security reasons, all of these options may not be available to all users at a site.

This Option	Provides Access To...
0 Defaults	The User Defaults panel, which allows users to specify default data set allocation, print options, and jobcard information. It also allows users to specify whether Endevor must intercept ISPF RETURN or JUMP commands. For more information, see Chapter 3, "Setting User Defaults and Options."

This Option	Provides Access To...
1 Display	The Display Options Menu, from which you can display element, footprint, approver group, and other environmental information.
2 Foreground	The Foreground Options Menu, from which you can request Endevor actions in foreground.
3 Batch	The Batch Options Menu, from which you can generate SCL to perform Endevor actions in batch, edit the SCL for these jobs, and to submit them.
4 Environment	The Environment Options Menu, from which you can display environment and stage information, and define and maintain systems, subsystems, types, processor groups, processing sequences for types, approver groups and approver group relationships. For more information, see the *Administration Guide*.
5 Package	The Package Options Menu, from which you can perform Endevor package processing online. For more information, see the *Packages Guide*.
6 Batch Package	The Batch Package Options Menu, from which you can generate SCL to perform all Endevor package functions in batch, edit the SCL for these jobs, and submit them.
U User Menu	The User Options Menu, from which you can build, edit, and submit report JCL in foreground.
T Tutorial	Endevor tutorials.
C Changes	Summaries of the new features in the current release of Endevor.
X Exit	Exit Endevor. This option returns you to the ISPF/PDF Primary Options Menu.

Note: If you press END to exit Endevor's Primary Options Menu, Endevor redisplays the Environment Selection List. You can select another environment by typing it's number in the OPTION field and pressing ENTER, or you can end your Endevor session and return to the ISPF/PDF Primary Options Menu by pressing END a second time.

2.5 Endevor Panels

2.5.1 Overview

Foreground processing in Endevor uses five kinds of panels:

- Option Menu panels
- Request panels
- Definition panels
- List panels
- Browse panels

Most foreground processing actions use a combination of these five kinds of panels. The next sections describe these panels in detail.

2.5.2 Option Menus

Within a given Endevor environment, there is a hierarchical menu structure. Once you logon, the first menu Endevor displays is the Primary Options Menu, as described in the previous section.

Each option on the Primary Options Menu enables you to access a secondary options menu, such as the Foreground Options Menu and the Package Options Menu. The secondary menus provide access to the request and definition panels that you use to perform actions, such as the Add/Update Request panel and the Cast Package panel.

For example, if you choose option **1**, DISPLAY, on the Primary Options Menu, Endevor displays the Display Options Menu, as shown below.

```
--------------------------  DISPLAY OPTIONS MENU  ---------------------------
 OPTION  ===>

    1  ELEMENT          - Display element/component list information
    2  FOOTPRINT        - Display footprinted members and compressed listings
    3  SITE             - Display site information
    4  STAGE            - Display stage information
    5  SYSTEM           - Display system definitions
    6  SUBSYSTEM        - Display subsystem definitions
    7  TYPE             - Display type definitions
    8  PROCESSOR GROUP  - Display processor group definitions
    9  APPROVER GROUP   - Display approver groups
    A  RELATE GROUP     - Display inventory area/approver group relationships
    E  ENVIRONMENT      - Display information about the current environment
    S  SITE SYMBOLS     - Display site symbols definitions
```

The first line of an Endevor options menu displays the menu title. System messages appear in the message area to the far right of the title.

The OPTION field appears on the second line of an Endevor menu. Use the OPTION field to select the processing option you want to use, or to specify standard ISPF commands such as END or CANCEL.

To select an option, type the appropriate code (**1**-**9**, **A**, or **E** on the Display Options Menu) in the OPTION field and press ENTER.

2.5.3 Request Panels

There are two kinds of Endevor request panels:

- Action request panels.
- Information request panels.

Both kinds of request panels allow you to specify a processing option and qualifying information. This information is usually the Endevor element(s) that you want to process and/or the current location and target location of the elements to be processed. The next two sections describe these panels in detail.

2.5.4 Action Request Panels

You use action request panels to request Endevor actions such as ADD, MOVE or DELETE. You access request panels from the Foreground, Batch, Package, and Batch Package Option Menus. The figure below shows a typical action request panel.

```
---------------------------  ADD/UPDATE ELEMENTS  -------------------------
 OPTION  ===>

    blank - Member list     A - Add an element    U - Update an element

 TO Endevor:                            ACTION OPTIONS:
    ENVIRONMENT ===> DEMO                  CCID                  ===>
    SYSTEM      ===> FINANCE               GENERATE ELEMENT      ===> Y (Y/N)
    SUBSYSTEM   ===> ACCTREC               DELETE INPUT SOURCE   ===> N (Y/N)
    ELEMENT     ===>                       NEW VERSION           ===>
    TYPE        ===>                       OVERRIDE SIGNOUT      ===> N (Y/N)
    STAGE:           Q                     PROCESSOR GROUP       ===>
                                           UPDATE IF PRESENT     ===> N (Y/N)
    COMMENT     ===>

 FROM ISPF LIBRARY:                     LIST OPTIONS:
    PROJECT ===> BST                       DISPLAY LIST ===> Y
    LIBRARY ===> C1DEMO
    TYPE    ===> CNTL
    MEMBER  ===>             THRU MEMBER ===>

 FROM OTHER PARTITIONED OR SEQUENTIAL DATA SET:
    DATA SET NAME ===>
```

The first line of an Endevor request panel displays the menu title. System messages appear in the message area to the right of the title.

The OPTION field appears on the second line of an Endevor request panel. To select an option, type the appropriate option code (**Blank**, **A** or **U** on this panel) in the OPTION field and press ENTER.

You can qualify your request by entering some or all of the information in the target (TO Endevor) and source (FROM ISPF LIBRARY) fields. The panel that appears next depends on how you complete the request panel, as follows:

- If you specify all of the information necessary to request a Endevor action, then Endevor executes the request when you press ENTER.
- If you do not provide all the necessary information, Endevor displays one or more list panels that allow you to complete the specification, then executes the request.

To cancel the request and return to the previous panel, press END.

2.5.5 Information Request Panels

You use information request panels to identify components (system, subsystem, type, processor group, or stage) of Endevor environments that you want to display or change. Display and environment definition processing use this kind of request panel. You access information request panels from the Environment Options Menu. The figure below shows a typical information request panel.

```
------------------------------  TYPE REQUEST  -------------------------------
OPTION  ===>

   blank - Display type definition
   # - Delete type definition
   C - Create type definition
   U - Update type definition

ENVIRONMENT ===> DOC

SYSTEM      ===> ADMIN

TYPE        ===> PROCESS

STAGE       ===> A        A - TEST      B - PROD
```

You can qualify your request by entering some or all of the information in the panel fields, as follows:

- If you specify all of the information necessary to identify a component of an Endevor environment, then Endevor displays a definition panel when you press ENTER.
- If you do not completely identify a component, Endevor displays one or more list panels that allow you to complete the specification, then displays a definition panel.

2.5.6 Definition Panels

You can use definition panels to:

- Display current information. You cannot change the information on the panel when you use a definition panel this way.
- Create new objects.
- Update existing objects.
- Delete existing objects.

The figure below shows a typical definition panel.

```
DISPLAY ----------------------  TYPE DEFINITION  ------------------------------
 COMMAND ===>

 CURRENT ENV:  QA1        STAGE ID:  1   SYSTEM:  PDS        TYPE:  COBOL
 NEXT    ENV:  QA1        STAGE ID:  B   SYSTEM:  PDS        TYPE:  COBOL

 DESCRIPTION:       COBOL TYPE WITH PROCESSOR
 UPDATED:           03MAY02 09:59 BY MONJO06B
             -----------------  ELEMENT OPTIONS  -------------------
 FWD/REV/IMG DELTA: R  (F/R/I)  COMPRESS BASE/ENCRYPT NAME:     Y  (Y/N)
 DFLT PROC GRP:     COBOUT   REGRESSION PCT:     00    REGR SEV:     I (I/W/C/E)
 SOURCE LENGTH:     80       COMPARE FROM:       7     COMPARE TO:   72
 AUTO CONSOL:       Y        LANGUAGE:     COBOL       PV/LB LANG:   COBOL
 REMOVE/CONSOL AT LVL:   96  HFS RECFM:          (COMP/CR/CRLF/F/LF/NL/V)
 LVLS TO REMOVE/CONSOL:  50  WS HOME OPSYS:           WS FILE EXT:
              -------------  COMPONENT LIST OPTIONS  ----------------
 FWD/REV DELTA:     F  (F/R) AUTO CONSOL:     Y  (Y/N) CONSOL AT LVL:      96
                                                       LVLS TO CONSOL:     50
              --------------------   LIBRARIES  ---------------------
   BASE/IMAGE LIBRARY:     BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.BASE
   DELTA LIBRARY:          BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.DLTA
   INCLUDE LIBRARY:        BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.INCL
   SOURCE O/P LIBRARY:     BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.OUTP
     EXPAND INCLUDES:      N  (Y/N)
```

The first line of an Endevor definition panel displays three items: a processing indicator (DISPLAY, CREATE, UPDATE, or DELETE) appears to the left; the menu title appears in the center; and a message area appears to the right of the title.

The COMMAND field appears on the second line of an Endevor definition panel. In keeping with standard ISPF operation, you can enter single commands at the prompt, or you can stack commands to facilitate screen navigation through Endevor panels.

For example, if you are using the Type Definition panel and want to access the Add/Update panel, you must press END repeatedly until you reach the Primary Options panel. From there you would select the FOREGROUND option, and then the ADD/UPDATE option.

The following command stack, however, would bring you immediately to the Add/Update panel:

```
COMMAND===>END;END;END;2;2
```

For information about the COMMAND field and command stacking, see your ISPF documentation.

The rest of a definition panel displays existing information about the system, subsystem, or type you have specified.

- If you have selected the CREATE option, the definition panel displays default information. You must enter information in the remaining appropriate fields.
- If you have selected the DISPLAY or DELETE options, existing information about the system, subsystem, or type displays. You **cannot** change any of this information.
- If you have selected the UPDATE option, existing information about the system, subsystem, or type displays. You **can** change this information.
- To cancel a request or return to the previous panel, press END.

2.5.7 List Panels

You use list panels to select an environment, and systems, subsystems, types, elements, members, or processor groups when specifying a Endevor action request.

Note: Endevor supports the Locate command on Element and Member Selection lists.

List panels display when you do not specify the requested information on information or action request panels, or specify the information using a name mask.

- If you do not specify the requested information, the list panel displays all the environments, systems, subsystems, types, or processor groups that have been defined.
- If you specify the requested information using a name mask, the list panel displays all names that meet the name mask criteria.

See the section Name Masking for more information on specifying a mask character.

You can select one or more items on these list panels for processing. When you select more than one item, Endevor processes them consecutively.

The following example illustrates the selection list panel that would be displayed if you entered a panel without specifying a system.

```
-------------------------  SYSTEM SELECTION LIST  -----------  ROW 1 OF 13
COMMAND ===>                                                 SCROLL ===> PAGE

 CURRENT ENV:  DEMO
 NEXT    ENV:

   SYSTEM      SYSTEM TITLE
   ADMIN     ADMINISTRATION OF Endevor - PROCS,TOOLS ETC...
   ADMINAW   ADMINISTRATION OF Endevor - PROCS,TOOLS ETC...
   FINANCE   FINANCIAL CONTROL SYSTEMS
   TESTING   TEST FOR BT
   VAUGHAN   ACCOUNTING SYSTEM
 ****************************** BOTTOM OF DATA ******************************
```

The first line of a list panel displays:

- The panel title, centered, which describes the contents of the list.
- The amount of information shown on the current panel. This is identified on the far right of line 1, using one of the following formats:

LINE *nnnnnn*	Identifies the starting line and the column range displayed.
COL *nnn nnn*	or
ROW *n* of *nn*	Identifies the starting row and the total number of rows in the list.

The second line of a list panel displays:

- The COMMAND===> prompt. For more information about the COMMAND field, see your ISPF documentation.
- The scroll amount. If the scroll amount is set to "PAGE," you can press UP to scroll back one page, or DOWN to scroll forward one page.

When a list panel appears, select the list item(s) you want to process. To do this, type an **S** (or other character specific to the panel) in the far left column, next to the name. Then press ENTER to continue.

The following message marks the end of the list:

```
*****BOTTOM OF DATA*****
```

2.5.8 Browse Panels

You use browse panels to review Endevor element information before executing an Endevor action. You can access a browse panel from the ISPF Primary Options Menu, many of the action request panels, and many of the display panels. You **cannot** change information on a browse panel.

The following figure shows an Element Browse panel.

```
BROWSE -- ZSXJXM2.C1TEMPR.LIST -------------------- LINE 00000000 COL 001 080
 COMMAND ===>                                          SCROLL ===> PAGE
******************************** TOP OF DATA  ********************************
********************************************************************************
********************************************************************************
**                                                                            **
** ELEMENT BROWSE                                        08FEB01 16:20   **
**                                                                            **
**    ENVIRONMENT:  DOC         SYSTEM: ADMIN       SUBSYSTEM:  STANDARD   **
**    ELEMENT:      PROCXREF    TYPE:   PROCESS     STAGE ID:      1       **
**    SIGNED OUT TO:USER001                                      **
********************************************************************************
********************************************************************************
------------------------- SOURCE LEVEL INFORMATION  -------------------------
 VV.LL SYNC USER     DATE    TIME  STMTS CCID         COMMENT
 ----- ---- -------- ------- ----- ----- ------------ ----------------------
 01.00      ZSXLDG1  10JAN01 15:37    60               ADDING A PROCESSOR
GENERATED   ZSXLDG1  10JAN01 15:37    60 .............  ADDING A PROCESSOR
 +00  //*************************************************************
 +00  //* THIS PROCESSOR IS EXECUTED WHEN A JCL PROC IS CHANGED.  IT WILL  *
 +00  //* CREATE A LIST OF ALL JCL ELEMENTS THAT EXECUTE THE PROC AND STORE*
```

The first line of a browse panel displays:

- The panel title, which describes the contents of the list.
- The processing indicator "BROWSE," which appears to the left of the panel title.
- The amount of information shown on the current panel. This is identified on the far right of line 1, using one of the following formats:

LINE *nnnnnn*	Identifies the starting line and the column range displayed.
COL *nnn nnn*	or
ROW *n* of *nn*	Identifies the starting row and the total number of rows in the list.

2.5.9 Example of Panel Interaction

You may use all five kinds of panels in a typical Endevor session. The following example shows you how to access the Move Elements panel, from which you might want to move certain elements from Stage 1 to Stage 2. The example assumes that you have access to more than one environment. Move elements, example of

1. Access the ISPF/PDF Primary Option Panel according to the procedures used at your site and select Endevor. Endevor displays the Environment Selection Panel.

```
-------- Endevor Environment Selection --------------  ROW 1 TO 19 OF 20
Option ===>                                            Scroll ===> PAGE

  Select an environment to continue.  Enter the END command to exit.
  --  --------   ----------------------------------------
   1  DEV        Development Environment
   2  QAS        Quality Assurance Testing
```

2. Select the environment in which you want to work by typing the environment number in the OPTION field and pressing ENTER. Endevor displays the Primary Options Menu.

```
---------------  AllFusion Endevor Primary Options Panel  ----------------------
Option ===>

  0   DEFAULTS      - Specify Endevor ISPF default parameters
  1   DISPLAY       - Perform Display functions
  2   FOREGROUND    - Execute Foreground Actions
  3   BATCH         - Perform Batch Action processing
  4   ENVIRONMENT   - Define or Modify Environment information
  5   PACKAGE       - Perform Foreground Package processing
  6   BATCH PACKAGE - Perform Batch Package SCL Generation
  U   USER MENU     - Display user option menu
  T   TUTORIAL      - Display information about Endevor
  C   CHANGES       - Display summary of changes for this release of Endevor
  X   EXIT          - Exit the Endevor dialog



                        Current environment: Q40

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Use the EXIT option to terminate Endevor
```
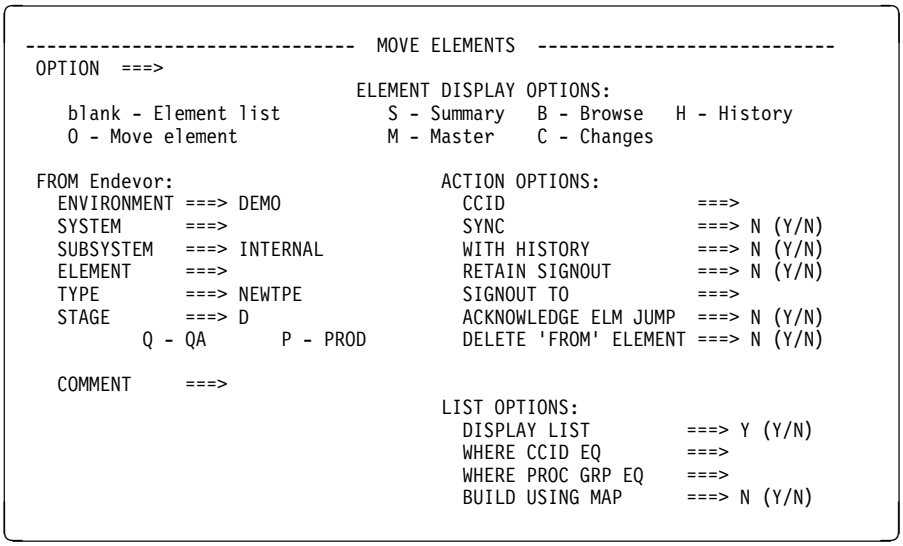

3. Select Option 2, FOREGROUND ACTIONS, by typing **2** in the OPTIONS field and pressing ENTER. Endevor displays the Foreground Options Menu.

```
-------------------------  FOREGROUND OPTIONS MENU  ----------------------
OPTION  ===>

   1  DISPLAY    - Display an element
   2  ADD/UPDATE - Add or update an element into stage 1
   3  RETRIEVE   - Retrieve or copy an element
   4  GENERATE   - Execute the Generate Processor for this element
   5  MOVE       - Move an element to the next inventory location
   6  DELETE     - Delete an element
   7  PRINT      - Print elements, changes and detail change history
   8  SIGNIN     - Explicitly sign-in an element
```

4. Select MOVE by typing **5** in the OPTION field and pressing ENTER**.** Endevor displays the Move Elements panel.



From the Move Elements panel you can:

- Execute the move request by filling in the FROM Endevor, LIST OPTIONS, and ACTION OPTIONS fields as necessary.
- Access any combination of the following kinds of panels to assist you in specifying your request:
  - *List panels* (system, subsystem, type, and/or processor group selection lists) to assist you in specifying your request.
  - *Browse panels* for the element(s) you select.
  - *Definition panels* (Summary of Levels, Element Master, Changes, Element History) to verify information before executing your request.

2.5.10 Panel Field Values

When you enter values in the fields on Endevor panels, Endevor uses that information to set the default values for those fields. When the same fields appear on subsequent panels, Endevor fills in the default value. To specify a new default for that field, type over the current default and submit the request.

All default values remain in effect for the session. In addition, some field values are saved in an ISPF variable pool, and remain in effect from session to session. Whether this occurs depends on the panel field. For example, the values for the FROM and TO fields, such as system, subsystem, type and stage, are saved between sessions. But action option fields such as OVERRIDE SIGNOUT and DELETE INPUT SOURCE are reset to the system default values when you begin a new session.

2.6 Name Masking

A name mask allows you to specify all names, or all names beginning with a particular string, to be considered when performing an action.

Name masks are valid on:

- Element names
- System, subsystem, and type names within FROM clauses
- Report syntax
- ISPF panels
- API requests

Name masks are not valid on:

- Environment names
- Element names in the following situations:
  - When entering a LEVel in a statement
  - When using the MEMber clause with a particular action
  - When building a package

2.6.1 Usage

There are three ways to mask names: by using the wildcard character (*), by using the placeholder character (%), and by using both together.

The wildcard (*) can be used in one of two ways to specify external file names:

- When coded as the only character of a search string, Endevor returns all members of the search field. For example, if you coded the statement ADD ELEMENT *, all elements would be added.
- When coded as the last character of a search string, Endevor returns all members of the search field beginning with the characters in the search string preceding the wildcard. For example, the statement ADD ELEMENT UPD* would add all elements beginning with "UPD", such as UPDATED or UPDATE.

Note: You cannot use more than one wildcard in a string. The statement ADD ELEMENT U*PD* would result in an error.

The placeholder (%) can also be used in one of two ways:

- When coded as the last character in a string, Endevor returns all members of the search field, beginning with the characters in the search string preceding the placeholder, but which have no more characters than were coded in the search string. If you coded the statement ADD ELEMENT UPD%, only those elements

with four-character-long names beginning with "UPD" (UPD1 or UPDA, for example) would be added.

- It is also possible to use the placeholder multiple times in a single search string. The statement ADD ELEMENT U%PD% would return all elements with five-character-long names that have U as the first character, and PD third and fourth.

The wildcard and the placeholder can be used together, provided that the wildcard appears only at the end of the search string and is used only once. An example of a statement using both the wildcard and the placeholder is ADD ELEMENT U%D*. This statement would add elements with names of any length that have U as the first character and D as the third.

2.7 Initiating Actions

2.7.1 Overview

You can perform four different types of action processing from the Endevor Primary Options Menu:

- Option **2,** FOREGROUND, enables you to execute foreground actions.
- Option **3,** BATCH, enables you to generate SCL to perform actions in batch.
- Option **5,** PACKAGE, enables you to perform package processing.
- Option **6**, BATCH PACKAGE, enables you to generate SCL to perform package functions in batch.

This section provides an overview of all four processing options.

2.7.2 Foreground Processing

From the Primary Options Menu, select option **2,** FOREGROUND, to access the Foreground Options Menu.

```
-------------------------  FOREGROUND OPTIONS MENU  ----------------------
 OPTION  ===>

    1  DISPLAY    - Display an element
    2  ADD/UPDATE - Add or update an element into stage 1
    3  RETRIEVE   - Retrieve or copy an element
    4  GENERATE   - Execute the Generate Processor for this element
    5  MOVE       - Move an element to the next inventory location
    6  DELETE     - Delete an element
    7  PRINT      - Print elements, changes and detail change history
    8  SIGNIN     - Explicitly sign-in an element
```

2.7.3 Batch Processing

From the Primary Options Menu, select option **3,** BATCH, to access the Batch Options Menu.

```
BATCH ----------------------  BATCH OPTIONS MENU  ----------------------------
OPTION  ===>

   1 BUILD SCL - Build batch SCL actions
   2 EDIT      - Edit request data set
   3 SUBMIT    - Submit job for batch processing
   4 VALIDATE  - Check request data set for syntax errors
   5 BUILD JCL - Enter additional JCL to be included with the job

 REQUEST DATA SET:
    PROJECT  ===> BST             APPEND      ===> N (Y/N)
    GROUP    ===> DOC             INCLUDE JCL ===> N (Y/N)
    TYPE     ===> JCLLIB
    MEMBER   ===>               <<< This field is for the scl only

 OTHER PARTITIONED OR SEQUENTIAL DATA SET:
    DSNAME ===>

 JOB STATEMENT INFORMATION:
    ===>
    ===>
    ===>
    ===>
```

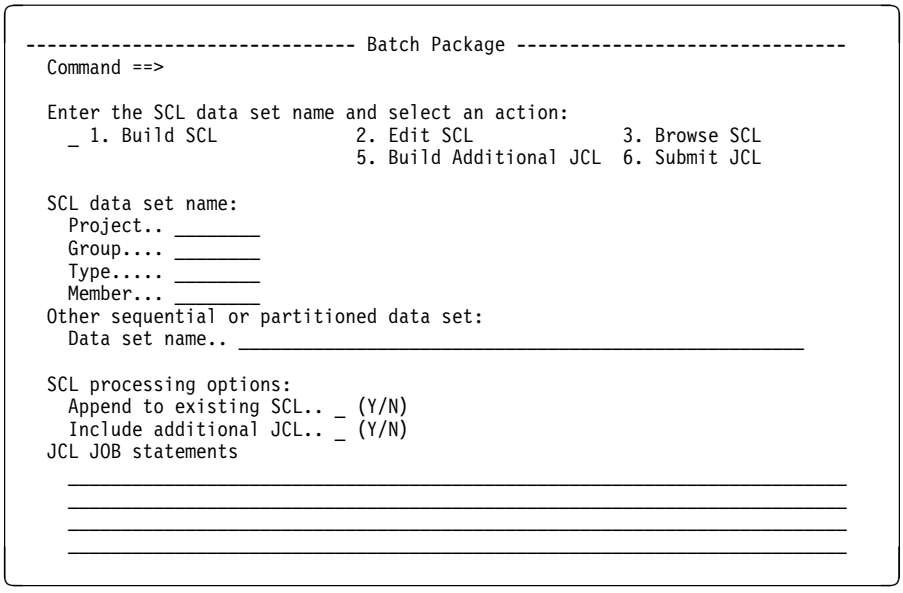
2.7.4 Package Processing

From the Primary Options Menu, select option **5,** PACKAGE, to access the Package Options Menu.

```
---------------------- Package Foreground Options Menu ------------------------
  Option  ===>

    1  DISPLAY        - Display Package Information
    2  CREATE/MODIFY  - Create or Modify Package
    3  CAST           - Prepare Package for Review
    4  REVIEW         - Approve or Deny Package
    5  EXECUTE        - Submit or Execute Package
    6  SHIP           - Ship Packages
    7  BACKOUT        - Perform Backout or Backin Processing
    8  COMMIT         - Clear Backout Information
    9  UTILITIES      - Reset, Delete, or Export Package

          Package ID ===>

  Limit selection list options. These options are used by the
  DISPLAY and UTILITIES functions:

        In-Edit......... Y            In-Execution.... Y
        In-Approval..... Y            Executed........ Y
        Denied.......... Y            Committed....... Y
        Approved........ Y            Enterprise Pkg.. A
```

2.7.5 Batch Package Processing

From the Primary Options Menu, select option **6**, BATCH PACKAGE, to access the Batch Package Options Menu.



For more information on packages, see the *Packages Guide*.

2.8 Documentation Conventions

2.8.1 Conventions Used in the Manual

This manual refers throughout to panel fields, values that may be entered in these fields, and certain keys that you use frequently. The following conventions are used with these values, as follows:

Convention	Example
Some panel fields appear in a character style and size that is different than the standard text	Use the OPTION field to select the processing you want to perform.
Field values appear in **bold** letters	Type an **S** (display), **#** (delete), or **U** (update) in this field.
Keys appear in capital letters	To return to the System Request Panel, press END.

Chapter 3. Setting User Defaults and Options

3.1 Setting User Defaults

3.1.1 The Endevor User Defaults Panel

When you type **0** in the OPTION field of the Primary Options Menu and press ENTER, Endevor displays the User Defaults panel.

```
UPDATE -----------------  ENDEVOR USER DEFAULTS  ------------------------------
COMMAND ===>

WORK DATASET ALLOCATION INFORMATION:    LIST DATASET ALLOCATION INFORMATION:
  PRIMARY QUANTITY   ===> 1               PRIMARY QUANTITY   ===> 1
  SECONDARY QUANTITY ===> 1               SECONDARY QUANTITY ===> 1
  SPACE UNITS        ===> CYL    (TRK/CYL/BLK)
  UNIT NAME          ===> SYSDA
  VOLUME SERIAL      ===>        (BLANK FOR DEFAULT)

PRINT OPTIONS:                          FOREGROUND OPTIONS:
  SYSOUT CLASS     ===>                   DISPLAY MSGS WHEN RC GE    ===> 0
  LINES PER PAGE   ===> 60                INTERCEPT ISPF RETURN CMD  ===> N


JOB STATEMENT INFORMATION:
   ===> //JOBNAME  JOB  (ACCOUNT)
   ===> //*
   ===> //*
   ===> //*
```

Use the User Defaults panel to:

- Allocate space for work and browse data sets used in foreground processing.
- Define printer output class and page size settings for use in foreground processing.
- Set a threshold return code above which the Execution Report for actions requested in foreground will display automatically.
- Record jobcard settings for use when submitting batch print jobs.
- Specify whether Endevor is to intercept ISPF RETURN and JUMP commands.

3.1.2 Setting and Saving User Defaults

These default specifications remain in effect until you change them again in this session or a subsequent session.

Allocation information should be set initially for each user ID, and need not be changed unless there are considerations specific to your site that warrant the change.

Once you identify the defaults you want, press ENTER to save your default values. To cancel the request and return to your previous defaults, press END. In either case, Endevor returns to the Primary Options panel.

3.1.3 Work Data Set Allocation Information Fields

The work data set allocation information fields contain information to define the default allocation for your work areas.

Field	Description
Primary Quantity	Number of units of space (defined by SPACE UNITS, below) in the primary allocation.
Secondary Quantity	Number of units of space in each secondary allocation.
Space Units	Units in which space is allocated: ■ Tracks (TRK) ■ Cylinders (CYL) ■ Blocks (BLK)
Unit Name	Descriptive name of the disk device. You can specify any value appropriate in the UNIT= parameter of DD (JCL) statements at your site.
Volume Serial	Volume serial number of the specific device you want to use for your work areas. Leave blank to use the installation default.

3.1.4 List Data Set Allocation Information Fields

The list data set allocation information fields contain information to define the primary and secondary allocations for your foreground print requests. All other specifications are assumed to be the same as those set for the Work Data Set Allocation Information.

Field	Description
Primary Quantity	Number of units of space (defined by SPACE UNITS) in the primary allocation.
Secondary Quantity	Number of units of space in each secondary allocation.

3.1.5 Print Options Fields

The Print Options fields contain information to define the default printer output class and page size.

Field	Description
SYSOUT Class	Default SYSOUT class to which your printed output is routed.
Lines Per Page	Number of lines per page for printed output.

3.1.6 Foreground Options

Use these fields to set a threshold return code above which the Execution Report for actions requested in foreground will display automatically, and to specify whether Endevor will intercept and cancel the RETURN operation to ISPF.

Field	Description
Display MSGS When RC GE	This return code establishes a threshold. Whenever the return code from a foreground processing action (Primary Options Menu, option **2**) is greater than or equal to this threshold value, Endevor automatically displays the Execution Report file for that action. Acceptable values for this field are **00, 04, 08, 12, 16.** The default return code is **12.**
Intercept ISPF Return CMD	This option enables individual users to instruct Endevor how to handle the ISPF RETURN and JUMP commands. Modifications to this field will take effect as soon as you return to the Endevor Primary Options Menu. Specify **N** (no; default) if you do not want Endevor to intercept ISPF RETURN (usually PF4) and JUMP commands. When this option is set to N and you use the RETURN (PF4) or JUMP command, Endevor will terminate and the ISPF Primary Option Menu will appear. Specify **Y** (yes) if you want Endevor to "cancel" RETURN and JUMP command processing. When this option is set to Y and you use the RETURN (usually PF4) or JUMP command, the Endevor Primary Options Menu will appear rather than the ISPF Primary Option Menu. For more details about this option, see Using the RETURN and JUMP Commands in Chapter 2, "Endevor Basics."

3.1.7 Job Statement Information Fields

The Job Statement Information fields allow you to enter jobcard settings for use with jobs submitted in batch. Enter all jobcard parameters, including the job name, time, message parameters, remote print information, and any other standards in use at your installation.

3.2 Adding User Options

3.2.1 The Endevor User Options Menu

The User Options Menu facility allows the Endevor administrator to attach user-defined functions to the Endevor TSO/ISPF front end. When you type **U** in the OPTION field of the Primary Options Menu and press ENTER, Endevor displays the User Options Menu.

```
------------------------  Endevor User Options Menu  ------------------------
  Option ===>

    1  REPORTS     - Build Endevor Report Requests

    2  ACMQ        - Endevor ACM Query Facility

    3  DB2 BATCH   - Endevor for DB2 Batch Processing









  Enter END to return to the Endevor Primary Options Menu
```

The User Options Menu facility comes with the capability to build, in foreground, Endevor report jobs for execution in batch. For details on how to build report JCL, see the *Reports Guide*.

You may define additional options that you want to appear on the User Options Menu. The *Administration Guide* explains how to customize the User Options Menu facility.

Chapter 4. Foreground and Batch Processing

4.1 Using the Foreground and Batch Options Menus

4.1.1 Action Processing Selection

You perform action processing using the FOREGROUND and BATCH options on the Primary Options Menu. These options are shown in the panel below.

```
---------------  AllFusion Endevor Primary Options Panel  ----------------------
Option ===>

  0   DEFAULTS      - Specify Endevor ISPF default parameters
  1   DISPLAY       - Perform Display functions
  2   FOREGROUND    - Execute Foreground Actions
  3   BATCH         - Perform Batch Action processing
  4   ENVIRONMENT   - Define or Modify Environment information
  5   PACKAGE       - Perform Foreground Package processing
  6   BATCH PACKAGE - Perform Batch Package SCL Generation
  U   USER MENU     - Display user option menu
  T   TUTORIAL      - Display information about Endevor
  C   CHANGES       - Display summary of changes for this release of Endevor
  X   EXIT          - Exit the Endevor dialog



                        Current environment: Q40

    (C) 2002 Computer Associates International, Inc.


Use the EXIT option to terminate Endevor
```

When you use...	Your Endevor requests are...
Foreground processing	Performed online (except for the PRINT option).
Batch processing	Placed in a request data set and submitted for processing at a later time.

4.2 The Foreground Options Menu

4.2.1 Foreground Options Menu Panel

When you select option **2**, FOREGROUND, from the Primary Options Menu, Endevor displays the Foreground Options Menu, which lists the actions that can be performed in foreground mode.

Note: Due to the security options in effect at your installation, not all actions may be available to you in foreground. Therefore, your Foreground Options Menu may differ from the menu shown and discussed on the following pages.

```
--------------------------  FOREGROUND OPTIONS MENU  ----------------------
OPTION  ===>

   1  DISPLAY    - Display an element
   2  ADD/UPDATE - Add or update an element into stage 1
   3  RETRIEVE   - Retrieve or copy an element
   4  GENERATE   - Execute the Generate Processor for this element
   5  MOVE       - Move an element to the next inventory location
   6  DELETE     - Delete an element
   7  PRINT      - Print elements, changes and detail change history
   8  SIGNIN     - Explicitly sign-in an element
```

4.2.2 Options

Select the action you want to perform by typing the action's number in the OPTION field and pressing ENTER.

Use this option	To:
1 Display	Display element information.
2 Add/Update	Add or update an element.
3 Retrieve	Copy an element to a user data set.
4 Generate	Generate an element.
5 Move	Move an element.
6 Delete	Remove an element and/or an element component list from Endevor.
7 Print	Print any of several detailed element reports showing the content of the element, the history of the element, or changes made to the element.
8 Signin	Remove a signout ID from an element.

4.3 The Batch Options Menu

4.3.1 Batch Options Menu Panel

When you select option **3**, BATCH, from the Primary Options Menu, Endevor displays the Batch Options Menu.

```
BATCH ----------------------  BATCH OPTIONS MENU  --------------------------
 OPTION  ===>

    1 BUILD SCL - Build batch SCL actions
    2 EDIT      - Edit request data set
    3 SUBMIT    - Submit job for batch processing
    4 VALIDATE  - Check request data set for syntax errors
    5 BUILD JCL - Enter additional JCL to be included with the job

  REQUEST DATA SET:
     PROJECT  ===> BST             APPEND      ===> N (Y/N)
     GROUP    ===> SUPPORT         INCLUDE JCL ===> N (Y/N)
     TYPE     ===> SRCLIB
     MEMBER   ===>

  OTHER PARTITIONED OR SEQUENTIAL DATA SET:
     DSNAME ===>

  JOB STATEMENT INFORMATION:
     ===>
     ===>
     ===>
     ===>
```

4.3.2 Options

Select the action you want to perform by typing the action's number in the OPTION field and pressing ENTER.

Use this option	To:
1 Build SCL	Create action (SCL) requests and place them in a request data set. You can display element information before creating action requests that relate to the element.
2 Edit	Edit a request data set, either to change existing requests or to add new requests.
3 Submit	Submit a job that will execute the action requests in batch. Before submitting the job, you can use option **5** to specify DD statements to be included with the job.
4 Validate	Validate the SCL syntax in the request data set. Endevor will edit the request to see if proper SCL syntax conventions are followed.

Use this option	To:
5 Build JCL	Define JCL (generally DD statements) to be included with the JCL submitted in option **3**.

4.3.3 Creating Batch Requests

To create Endevor action requests (such as ADD or UPDATE) for batch processing you need an allocated partitioned or sequential data set. After you have allocated the data set, go to the Batch Options Menu. Select option **1**, BUILD SCL, specify the data set name, and press ENTER. You can also specify the following information:

Field	Description
Request Data Set	Use these fields to define the data set to which you want to write the action requests. This data set must be a partitioned data set or a sequential file, and must be allocated prior to referencing it on this panel. As an alternative, you can use the OTHER PARTITIONED OR SEQUENTIAL DATA SET field.
Append	Use this field to indicate whether you want to add new requests to the end of an existing data set or library member **Y** (yes) or overwrite any data currently in the data set or library member **N** (no). The default is **N**.
Include JCL	Use this field to indicate whether you want to include JCL in addition to the standard execution JCL. Acceptable values are: ■ **N**-- Default. Do not include additional JCL. ■ **Y**-- Include additional JCL. This JCL must already have been defined. This is used in conjunction with Option 5 - Build JCL.
Other Partitioned or Sequential Data Set	Use this field to define the data set by entering the appropriate data set name (and member, if a library) in the following format: *'dataset(member)*'.
Job Statement Information	These fields allow you to provide jobcard settings for submitting batch jobs. Provide all jobcard parameters, including job name, time, message parameters, remote print information, and any other standards in use at your site.

4.3.3.1 SCL Generation Panel

When you select option **1** and press ENTER, Endevor displays the SCL Generation panel. This panel allows you to select the type of action request you want to generate, or to request an element display. The request data set and append information defined on the Batch Options Menu appear at the bottom of the screen.

```
------------------------------  SCL GENERATION  -----------------------------
 OPTION  ===>

    1  DISPLAY       - Display an element
    2  ADD/UPDATE    - Add or update an element into stage 1
    3  RETRIEVE      - Retrieve or copy an element
    4  GENERATE      - Execute the Generate Processor for this element
    5  MOVE          - Move an element to the next inventory location
    6  DELETE        - Delete an element
    7  PRINT ELEMENT - Print elements, changes and detail change history
    8  SIGNIN        - Explicitly sign-in an element
    9  TRANSFER      - Transfer elements between two ENDEVOR locations
   10  PRINT MEMBER  - Print a compressed listing or member
   11  LIST ELEMENT  - Create List actions for ENDEVOR elements
   12  LIST MEMBER   - Create List actions for external members
   13  ARCHIVE       - Archive elements
       REQUEST DATA SET: BST.SUPPORT.SRCLIB(SCL)
       APPEND:           Y
```

4.3.3.2 SCL Generation Panel Options

Specify the option number that corresponds to the action you wish to perform. Your choices are as follows:

Use this option	To
1 Display	Display element information before writing action requests for the element.
2 Add/Update	Add or update elements.
3 Retrieve	Copy elements to a user data set.
4 Generate	Generate elements.
5 Move	Move elements from one map location to another.
6 Delete	Remove elements and/or element component lists from either stage.
7 Print Element	Print any of several detailed element reports showing element source, the history of the element, changes made to the element, summary of levels for the element, or Master Control File information about the element.
8 Signin	Remove signout IDs from elements.
9 Transfer	Move elements from a map location to a location not on the map.

Use this option	To
10 Print Member	Print or browse footprinted members from a library.
11 List Element	List elements from the Master Control File, where the list takes the form of action requests.
12 List Member	List or browse footprinted members from a library. Again, the list takes the form of action requests.
13 Archive	Write the current version of elements to a sequential file (known as an archive data set), generally deleting it following the archive.

After you press ENTER, Endevor displays the appropriate action panel.

4.3.4 Editing Batch Requests

To edit an existing request data set, select option **2**, EDIT, from the Batch Options Menu. EDIT uses the standard ISPF Edit facility.

When you select EDIT, you must also specify the data set you want to edit using the REQUEST DATA SET or OTHER PARTITIONED OR SEQUENTIAL DATA SET fields on the Batch Options Menu.

Note: The ISPF Edit Recovery facility is not available for this function. If your TSO session crashes, then any changes made, but not saved, will be lost.

You can, however use the ISPF/PDF Edit RECOVERY ON/OFF command to control whether a recovery data set is associated with the element. The RECOVERY ON command is used in conjunction with the UNDO Edit command.

```
BATCH ----------------------  BATCH OPTIONS MENU  -------------------------
 OPTION  ===> 2

    1 BUILD SCL - Build batch SCL actions
    2 EDIT      - Edit request data set
    3 SUBMIT    - Submit job for batch processing
    4 VALIDATE  - Check request data set for syntax errors
    5 BUILD JCL - Enter additional JCL to be included with the job

  REQUEST DATA SET:
     PROJECT  ===> BST             APPEND      ===> N (Y/N)
     GROUP    ===> SUPPORT         INCLUDE JCL ===> N (Y/N)
     TYPE     ===> SRCLIB
     MEMBER   ===>

  OTHER PARTITIONED OR SEQUENTIAL DATA SET:
     DSNAME ===>

  JOB STATEMENT INFORMATION:
     ===>
     ===>
     ===>
     ===>
```

After you have specified the data set, press ENTER. Endevor displays an edit panel showing the contents of the data set.

```
EDIT ---- BST.C1DEMO.SCL ------------------------------------ COLUMNS 001 072
 COMMAND ===>                                                 SCROLL ===> PAGE
 ****** **************************** TOP OF DATA ***************************
 000001  ADD ELEMENT 'BC1JACCT'
 000002    FROM DSNAME 'BST.C1DEMO.CNTL'
 000003    TO ENVIRONMENT 'DEMO' SYSTEM 'FINANCE' SUBSYSTEM 'ACCTREC'
 000004      TYPE 'COPYBOOK'
 000005      OPTIONS CCID 'SAMDEMO' COMMENTS 'ADDING BATCH'
 000006      UPDATE
 000007  .
 000008  ADD ELEMENT 'BC1JCMPR'
 000009    FROM DSNAME 'BST.C1DEMO.CNTL'
 000010    TO ENVIRONMENT 'DEMO' SYSTEM 'FINANCE' SUBSYSTEM 'ACCTREC'
 000011      TYPE 'COPYBOOK'
 000012      OPTIONS CCID 'SAMDEMO' COMMENTS 'ADDING BATCH'
 000013      UPDATE
 000014  .
 000015  ADD ELEMENT 'BC1JDEFT'
 000016    FROM DSNAME 'BST.C1DEMO.CNTL'
 000017    TO ENVIRONMENT 'DEMO' SYSTEM 'FINANCE' SUBSYSTEM 'ACCTREC'
 000018      TYPE 'COPYBOOK'
 000019      OPTIONS CCID 'SAMDEMO' COMMENTS 'ADDING BATCH'
 000020      UPDATE
 000021  .
```

Use this panel to review the action requests in the data set, or to modify the data set. For additional information about coding the batch requests, see the *SCL Reference Guide*.

4.3.5 Submitting Batch Jobs

To submit a job that executes action requests in batch, select option **3**, SUBMIT, from the Batch Options Menu. Before submitting the job, you can:

- Validate the request data set using option **4**, VALIDATE.
- Specify DD statements to be included with the job using option **5**, BUILD JCL.
- When you select option **3**, you must specify the data set containing the Endevor actions that you want to process in either the REQUEST DATA SET or OTHER PARTITIONED OR SEQUENTIAL DATA SET fields, as described below.

```
BATCH ----------------------  BATCH OPTIONS MENU  ------------------------
 OPTION  ===> 3

    1 BUILD SCL - Build batch SCL actions
    2 EDIT      - Edit request data set
    3 SUBMIT    - Submit job for batch processing
    4 VALIDATE  - Check request data set for syntax errors
    5 BUILD JCL - Enter additional JCL to be included with the job

  REQUEST DATA SET:
     PROJECT  ===> BST             APPEND      ===> Y (Y/N)
     GROUP    ===> SUPPORT         INCLUDE JCL ===> N (Y/N)
     TYPE     ===> SRCLIB
     MEMBER   ===>

  OTHER PARTITIONED OR SEQUENTIAL DATA SET:
     DSNAME ===> 'BST.C1DEMO.SCL'

  JOB STATEMENT INFORMATION:
     ===>
     ===>
     ===>
     ===>
```

The following table describes the SUBMIT option fields.

Field	Description
Request Data Set	Use these fields to identify the request data set you want to submit for execution. Alternatively, use the OTHER PARTITIONED OR SEQUENTIAL DATA SET field.
Other Partitioned or Sequential Data Set	Data set name (and member name if the data set is a library) of the request data set you want to submit for execution: *'data set (member name)'* format.
Include JCL	Indicate whether you want to include JCL in addition to the standard execution JCL: **Y** (yes) or **N** (no). If you specify **Y**, you must have defined the additional JCL already, using option **5**. The default is **N**.
Job Statement Information	Jobcard to be submitted with the execution.

After you specify the necessary information, press ENTER. Endevor builds the JCL to submit the job dynamically, including the jobcard from the Batch Options Menu, a standard job stream provided during installation, and any additional JCL. TSO displays a message similar to the following example to let you know the job has been submitted:

```
IKJ56250I JOB ZSXJMA1A(JOB02433) SUBMITTED
 ***
```

4.3.6 Validating Batch Requests

To validate the SCL in an action request data set and the JOB STATEMENT INFORMATION filled in on the screen, select option **4**, VALIDATE, from the Batch Options Menu. When you validate the SCL, Endevor checks the syntax of the action requests just as if it were going to run the job, and returns an appropriate message(s) if there are errors. The ISPF/PDF Browse facility shows syntax errors within SCL statements defined in the REQUEST DATA SET, if any.

It is a good idea to use the validate option before submitting a job to execute the action requests (SUBMIT option).

When you select VALIDATE, you must also specify the data set you want to validate using the REQUEST DATA SET or OTHER PARTITIONED OR SEQUENTIAL DATA SET fields on the Batch Options Menu

```
BATCH ----------------------  BATCH OPTIONS MENU  --------------------------
 OPTION  ===> 4

    1 BUILD SCL - Build batch SCL actions
    2 EDIT      - Edit request data set
    3 SUBMIT    - Submit job for batch processing
    4 VALIDATE  - Check request data set for syntax errors
    5 BUILD JCL - Enter additional JCL to be included with the job

  REQUEST DATA SET:
     PROJECT  ===> BST             APPEND      ===> Y (Y/N)
     GROUP    ===> SUPPORT         INCLUDE JCL ===> N (Y/N)
     TYPE     ===> SRCLIB
     MEMBER   ===>

  OTHER PARTITIONED OR SEQUENTIAL DATA SET:
     DSNAME ===> 'BST.C1DEMO.SCL'

  JOB STATEMENT INFORMATION:
     ===>
     ===>
     ===>
     ===>
```

After you have filled in the necessary information, press ENTER. Endevor validates the action request data set and jobcard. If there are errors, the system returns a panel similar to the one below:

```
BROWSE -- ZSXJMA1.C1TEMPR1.MSGS -------------------- LINE 00000000 COL 001 080
 COMMAND ===>                                          SCROLL ===> CSR
******************************** TOP OF DATA  ****************************
          16:42:50  C1Y0015I  STARTING PARSE OF REQUEST CARDS
           STMT #1
           RADD ELEMENT 'BC1JACCT' FROM
           BNVPPARS: E004 INVALID COMMAND WORDING, FOUND:             RADD
           DSNAME 'BST.C1DEMO.CNTL' TO
           BNVPPARS: E004 INVALID COMMAND WORDING, FOUND:             DSNAME
           ENVIRONMENT 'DEMO' SYSTEM 'FINANCE' SUBSYSTEM 'ACCTREC'
           BNVPPARS: E004 INVALID COMMAND WORDING, FOUND:             ENVIRONMEN
           BNVPPARS: E004 INVALID COMMAND WORDING, FOUND:             TYPE
```

4.3.7 Building Additional JCL

To define JCL to be included with other batch requests (for example, if an action request references a source or target file by DDname, or identifies an archive data set):

1. Select option 5, BUILD JCL, from the Batch Options Menu and press ENTER. Endevor displays JCL To Be Included In Batch Job panel.

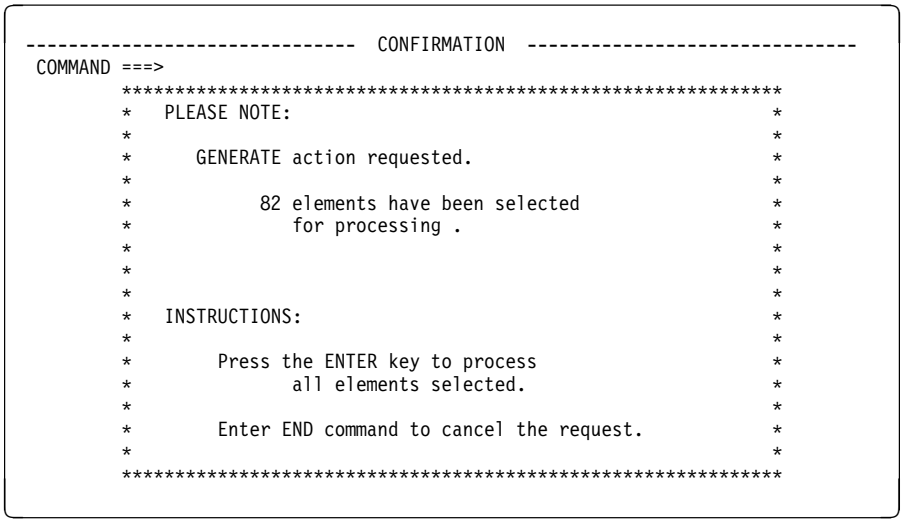
```
----------------- JCL TO BE INCLUDED WITH BATCH JOB ---------------------------
COMMAND ===>
       .........1.........2.........3.........4.........5.........6.........7..

  ===> //INDD   DD DSN=BST.C1DEMO.ABC,DISP=SHR
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
  ===>
```

2. Fill in the JCL (complete statements) you want to include with the batch job, and press PF3 to return to the Batch Options Menu.

4.4 The Confirmation Panel

4.4.1 Confirmation Panel

If DISPLAY LIST = **N** and the selection list contains more than one element or member, Endevor displays a confirmation panel when you press ENTER.



4.4.2 Options

The information that appears on this panel depends on the information you have entered on the action request panel. In this case, 82 elements have been selected for generate processing. The Confirmation panel provides two options:

- You can confirm that you want to continue processing your request. Press ENTER and Endevor redisplays the Confirmation panel. The panel reflects the number of elements processed, as processing takes place. When processing is complete, the original request screen displays with a message in the upper right corner that indicates the total number of elements that have been processed.
- You can end processing for this request by typing *END* at the COMMAND line.

Note: Use caution when requesting actions with DISPLAY LIST = **N.** Once you press ENTER with the Confirmation panel displayed, you **cannot** cancel the processing until all selected elements or members have been processed.

If you have not specified a CCID and/or comment and one is required, an Action Prompt panel appears when you press ENTER at the Confirmation panel.

4.5 Selection Lists

4.5.1 Overview

If you leave the system, subsystem, or element fields blank or use a name mask on an action panel, and DISPLAY LIST = **Y**, Endevor returns System, Subsystem, Element, or Member Selection lists to allow you to specify your request fully. See the section Name Masking for more information on specifying a mask character.

Note: If you specify fully all search criteria except stage, provide an option, and the resultant list has only one element, Endevor does not display the Element Selection List.

Once you have selected the elements or members against which you want to execute the action, and press ENTER, Endevor:

- Executes the action if you are working in foreground.
- Builds SCL requests in a request data set if you are working in batch.

These selection lists are shown in this section. Reference this section as necessary when reviewing the action explanations in Chapter 6, "Action Processing."

4.5.2 System Selection List

The System Selection List allows you to select a system for your request.

```
-------------------------  SYSTEM SELECTION LIST  --------------  ROW 1  OF 4
 COMMAND ===>                                                  SCROLL ===> CSR

                                                               COMMENTS  CCID
   SYSTEM     SYSTEM TITLE                                     REQ'D   REQ'D
 s FINANCE    FINANCIAL CONTROL SYSTEMS                            Y       Y
   INVENTOR   INVENTORY CONTROL SYSTEM                             Y       Y
   PERSONEL   PERSONNEL SYSTEM                                     N       N
   PROCESS    PROCESSORS                                           Y       Y
 ***************************** BOTTOM OF DATA  ****************************
```

The following list describes the System Selection List fields:

Field	Description
Selection (untitled)	Select the system you want to use by typing an **S** in this column, next to the appropriate system.
System	System name.
System Title	Descriptive title for the system.

Field	Description
Comments Req'd	Indicates whether comments are required for actions requested in this system: **Y** (yes) or **N** (no).
CCID Req'd	Indicates whether a CCID is required for actions requested in this system: **Y** (yes) or **N** (no).

4.5.3 Subsystem Selection List

The Subsystem Selection List allows you to select a subsystem for your request.

```
------------------------  SUBSYSTEM SELECTION LIST  ------------  ROW 1 OF 3
COMMAND ===>                                                  SCROLL ===> CSR

  SYSTEM   SUBSYSTEM    SUBSYSTEM TITLE
  FINANCE  ACCTPAY      ACCOUNTS PAYABLE
s FINANCE  ACCTREC      ACCOUNTS RECEIVABLE
  FINANCE  GENLEDG      GENERAL LEDGER
*************************** BOTTOM OF DATA  ********************************
```

The following list describes the Subsystem Selection List fields:

Field	Description
Selection (no title)	Type an **S** in this column next to the subsystem you want to select.
System	Name of the system being processed.
Subsystem	Subsystem name.
Subsystem Title	Descriptive title for the subsystem.

4.5.4 Element and Member Selection Lists

Endevor supports the Locate command on Element and Member Selection lists.

Note: Element Selection lists are sorted alphabetically by element name, stage, system, subsystem, and type. Whenever possible, you should fully qualify a system when requesting the selection list. If you cannot fully specify a system, carefully examine the Endevor location (environment/stage) and classification information (system/subsystem/type) associated with a located element to make sure it is the element you want.

The Element Selection List for the MOVE action is shown below. Element Selection Lists for the DELETE, GENERATE, LIST ELEMENT, PRINT ELEMENT, RETRIEVE, SIGNIN, and TRANSFER actions are similar.

```
MOVE ------------------------  ELEMENT SELECTION LIST  ------  ROW 281 OF 2412
COMMAND ===>                                                  SCROLL ===> PAGE

  ELEMENT              TYPE      ENVIRON  S  SYSTEM    SUBSYSTEM  VV.LL  RC
  @WRKTYDS             ASMIMAC   BST      P  NDVR250   INTERNAL   01.01  0000
  AC1PSERV             LNKIRN24  BST      P  NDVR250   INTERNAL   01.04  0000
  ASMUSERT             CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BAIODSCT             COBCOPY   BST      P  NDVR250   INTERNAL   01.01  0000
  BASICDEL             ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICDEL             LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN             ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN             LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BC1DXFPI             XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0012
  BC1DXFPR             XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JACCT             CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JANLZ             CNTLE     BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JCMPR             CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JCONV             CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
  BC1JDB2R             CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JDEFT             CNTLE     BST      P  NDVR250   INTERNAL   01.07  0000
  BC1JELIB             CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BC1JFUP1             CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
```

From this list, you can:

- Select one or more elements by typing a designated character to the left of each element to be selected. (To see a list of designated characters, press HELP).
- Request a detailed element display for one or more elements by placing the appropriate character (**S**-Summary of Levels, **M**-Element Master, **B**-Element Browse, **C**-Element Changes, or **H**-Element History) to the left of each element.

When you press ENTER, Endevor performs the processing requested and returns the panel with a message next to each selected element. For more information, browse the listing data set *userid*.C1TEMPR*n*.MSGS.

Field	Description
Selection (no title)	Use this field to select an element for processing.
Element	An element name eligible for selection.
Message (no title)	This field displays messages, such as *DELETED. This field has the header NEW NAME for the RETRIEVE action, and the header TO NAME for the TRANSFER action, and is used to provide a different name for the element at the targets of those actions.
Type	The type associated with the element.
Environ	The name of the environment where the element is located.
S	The ID of the stage where the element is located.
System	The system to which the element is defined.
Subsystem	The subsystem to which the element is defined.

Field	Description
VV.LL	The version/level for the element.
RC	The return code for the most recent action performed against the element.

4.5.5 Bypassing System and Subsystem Selection Lists

The ENCOPTBL option ENHOPT NO_SYS_SBS_SELECTION_LIST enables the processing of all element selection lists to *always* bypass both the System and Subsystem lists and display a consolidated element selection list.

Activation of this option is controlled through the Endevor Optional Feature Table (ENCOPTBL). Refer to Appendix F, “Endevor Optional Feature Table”, of the *Installation Guide* for information on using ENCOPTBL.

4.5.6 ESORT Column Sorting Feature

ESORT allows you to sort any selection list in Endevor. You can sort a selection list by any column in either ascending or descending order. By default, lists are sorted in ascending order.

To sort a column in ascending order, type **ES** followed by the first three letters of the column heading (for example, **ES DAT**) on the command line, then press Enter.

To sort a column in descending order, type **ES** followed by the first three letters of the column heading *preceded by a minus sign* (for example, **ES -DAT**) on the command line, then press Enter.

To sort the selection list to the default sequence (usually the first column), simply type **ES** on the command line, then press Enter.

To activate ESORT, please add iprfx.iqual.ISPTLIB to your ISPTLIB section of the CLIST you use to invoke Endevor.

4.5.7 EONLY Column Filtering Feature

EONLY allows you to filter any selection list in Endevor by either including or excluding rows that match the column filter value that you specify. Before using EONLY, you must build a select list for one of Endevor's scrollable list panels.

To filter all rows beginning with a certain column value, type **EONLY columnname value** on the command line, where *columnname* is the name of the column you want to filter, and *value* is the value that every row must have.

Conversely, to filter all rows **not** beginning with a certain column value, type **EONLY -columnname value** (note the minus sign), where *columnname* is the name of the column you want to filter, and *value* is the value that no row can have.

Notes:

- When entering the column name, only the first three characters of the column name are required. A maximum of six characters can be entered.
- The *value* field supports placeholders. Refer to the section in this guide on placeholders for more information.
- The EONLY command can be invoked with **EONLY** or **EO**, provided that the supplied CTLICMDS table is in use. It can also be invoked with **TSO EONLY**.
- Once you have filtered a list, the only way to remove the filter is to use the PF3 key to back out of the list, which must then be rebuilt.

4.5.7.1 Using Dates with EONLY

Dates and date ranges can be specified in the *value* field of EONLY. The date must be entered in the following format:

```
DDMMMYY
```

See the following example:

```
30SEP01
```

You can also filter for all rows that have dates earlier than or later than the date in the *value* field, as well as for those rows that fall within the range of two dates specified in the *value* field.

For example, to filter for all rows containing a date later than December 31, 2001, use the greater than sign (>) as in the following example:

```
EO DAT >31DEC01
```

To filter for all rows containing a date earlier than January 1, 2002, use the less than sign (<) as in the following example:

```
EO DAT <01JAN02
```

To filter for all rows containing a date between January 1, 2001 and June 30, 2001, use a dash to separate the two dates, as in the following example:

```
EO DAT 01JAN01-30JUN01
```

4.5.8 EPRINT

This command allows you to print a selection list. Simply enter **EPRINT** on the command line, and the output will be sent to your ISPF listing data set.

4.5.9 Long Name Elements in Selection List

In ISPF selection lists, element names longer than 10 characters appear in a truncated form. The format is:

```
{longn...}
```

where "longn" is the first five characters of the name. See the example below:

```
---------------------------  ELEMENT SELECTION LIST  -------------- Row 1 of 9
 COMMAND ===>                                                SCROLL ===> CSR

                                                             ---- DATES ----
    ELEMENT    TYPE     ENVIRON    S SYSTEM   SUBSYSTEM  VV.LL CURRENT GENERATE
    {longn...} COPY     QA1        1 PDS      PDSSUB     01.00 16MAY01 16MAY01
    ELEM01     COPY     QA1        1 PDS      PDSSUB     01.00 16MAY01 16MAY01
    FINCPY1    COPY     QA1        1 PDS      PDSSUB     01.00 16MAY01 16MAY01
    TESTELM1   COPY     QA1        1 PDS      PDSSUB     01.00 16MAY01 16MAY01
    TESTELM2   COPY     QA1        1 PDS      PDSSUB     01.00 16MAY01 16MAY01
 ****************************** Bottom of data ******************************
```

You cannot work with long name elements from an ISPF selection list. Access to long name elements is only available through AllFusion Endevor Webstation.

Note: If more than one long name element starts with the same five characters, ISPF displays only one entry.

4.6 The Action Prompt Panel

4.6.1 Action Prompt Panel

If you do not specify a CCID and/or comment on the action request panel when one and/or the other is required for an action, Endevor displays the Action Prompt panel before executing the action.

```
------------------------------  ACTION PROMPT  -----------------------------
 COMMAND ===>
    Specification Required:
         CCID:    Y  (Y/N)
         COMMENT: Y  (Y/N)
    Action: RETRIEVE             Element: PROG01
    Environment: DEV             System: FINANCE         Subsystem: PO
    Type: COBOL                  Stage:  D
    CCID     ===>
    COMMENT  ===>
```

4.6.2 Fields

To complete your action request, type a valid CCID and/or comment on this screen and press ENTER. The CCID and COMMENT fields are the only fields in which you can enter information; the remaining fields are display only.

Field	Description
Specification required: CCID and Comment	Indicates whether a CCID and/or comment is required for this action.
Action	Name of the requested action.
Element	Name of the element against which the action has been requested.
Environment	Name of the current environment.
System	Name of the current system.
Subsystem	Name of the current subsystem.
Type	Name of the current type.
Stage	ID of the current stage.
CCID	Enter a valid CCID for the named action and element. This CCID remains as the required CCID until you change it or until the end of the Endevor session.
Comment	Enter a comment for the named action and element. This comment remains as the required comment until you change it or until the end of the Endevor session.

Note: When you select multiple elements from a selection list, the Action Prompt panel appears once for each selected element. When you press ENTER after providing a CCID and/or comment for the first selected element, the name of the second selected element appears in the ELEMENT field. The CCID and comment remain, allowing you to accept the same CCID and comment, or to change them before pressing ENTER.

4.7 The Batch Execution Report

4.7.1 Overview

As the batch job is processed, Endevor writes a Batch Execution Report which documents the actions requested, as well as the actual processing that occurs. The report consists of three sections:

- The Syntax Request Report section.
- The Execution Report section.
- The Action Summary Report section.

Endevor initially validates the syntax in the batch job and produces the Syntax Request Report. If your SCL requests have been parsed successfully, Endevor continues and produces the Execution Report and the Action Summary Report. If you want Endevor to save the Action Summary report section in a separate data set from the Syntax Request and Execution Reports, you can specify that data set name to Endevor's Batch Execution program with the C1MSGS2 parameter.

You can view the Execution Report sections:

- Automatically, by establishing a low threshold return code on the DISPLAY MESSAGES WHEN RC GE field on the User Defaults panel.
- By browsing the file *userid*.C1TEMPR*n*.MSGS, where *userid* is your ISPF user ID, and *n* is the number of the session in which Endevor is running or key TSO MSGS (a CLIST provided to display the C1TEMPR*n*MSGS.)
- In the C1MSGS1 member on the batch run SYSOUT printout.
- Optionally, in the C1MSGS2 member on the batch run SYSOUT printout.

4.7.2 The Syntax Request Report Section

When you submit your requests, Endevor validates the SCL syntax in the action request data set and assigns a statement number to each SCL statement coded. (The validation process is the same as the procedure followed if you select the VALIDATE option from the Batch Options Menu.)

```
29MAR01 12:32                                                    PAGE   1
      E N D E V O R   S Y N T A X   R E Q U E S T   R E P O R T    REL X.XX SERIAL XXXX
REQUESTED BY: ZSXGMG1Z
          12:32:14  C1Y0015I  STARTING PARSE OF REQUEST CARDS
           STMT #1
           ADD ELEMENT 'TESTELEM'
             FROM DSNAME 'BST.SGENCOB01'
             TO   ENVIRONMENT 'QA' SYSTEM 'GMGTEST' SUBSYSTEM 'GMGTEST'
               TYPE 'GMGCONW'
             OPTIONS CCID 'ZSXGMG1' COMMENTS 'TEST' UPDATE
            .
           STMT #2
           EOF STATEMENT GENERATED
         12:32:15  C1Y0016I  REQUEST CARDS SUCCESSFULLY PARSED
```

The Syntax Request Report lists every SCL statement (a statement begins with an action and ends with a period) in the order it was coded, and flags any syntax errors. If no EOF statement is found, the system will generate one.

When all requests have been validated, Endevor checks for errors. If no errors are detected, processing continues and the Execution and Action Summary Reports are produced. If errors do exist, processing is terminated at this point. Refer to the *Error Codes and Messages Guide* for an explanation of any Syntax Request Report messages received.

4.7.3 The Execution Report Section

The Execution Report is shown after the execution is complete. This section of the Batch Execution Report expands each action request listed on the Syntax Request Report to include complete Endevor location information (system, subsystem, type, and stage) for each element, as well as all selected options.

```
29MAR01   12:32                                                                                                  PAGE    1
                                    E N D E V O R   E X E C U T I O N   R E P O R T                      REL:  X.XX SERIAL XXXX
REQUESTED BY: ZSXGMG1Z
          12:32:21  C1G0202I  ACTION #1 / STMT #1
          12:32:21  C1G0203I     ADD ELEMENT TESTELEM
          12:32:21  C1G0205I        FROM DSNAME:  BST.SUPPORT.SRCLIB
          12:32:21  C1G0204I        TO   ENVIRONMENT: QA     SYSTEM: GMGTEST     SUBSYSTEM:GMGTEST    TYPE: GMGCONW   STAGE: 1
          12:32:21  C1G0232I        OPTIONS:  UPDATE, SOURCE MEMBER
          12:32:21  C1G0232I                  CCID: ZSXGMG1
          12:32:21  C1G0232I                  COMMENT: TEST
          12:32:25  C1G0029W  NO ELEMENT SOURCE CHANGES DETECTED
          12:32:25  C1G0105I  ELEMENT TESTELEM 01.00 NOT UPDATED BY BST.SUPPORT.SRCLIB(GENCOB01)
          12:32:26  C1G0143I  BEGINNING EXECUTION OF GENERATE PROCESSOR GMGCONW OF GROUP GMGCONW.
          12:32:27  C1G0246I  PROCESSOR GMGCONW LOADED FROM BST.QATEST.PRC1LOAD
          12:32:27  C1G0247I    FOOTPRINT: ENV: QA SYS: PROCESS SBS: PROCESS ELM: GMGCONW TYPE: PROCESS STG NBR: 1
          12:32:27  C1G0248I               VER: 01.00 DATE: 29MAR01 11:48
          12:32:27  C1G0249I  //TEST      PROC CONWPARM='EXPINCL(Y)',
          12:32:27  C1G0249I  //          CONLPARM='STORE',
          12:32:27  C1G0249I  //          UNIT='SYSDA'
          12:32:27  C1G0249I  //*
          12:32:27  C1G0249I  //*  RUN A CONWRITE STEP
          12:32:27  C1G0249I  //*
          12:32:27  C1G0249I  //STEP1     EXEC PGM=CONWRITE,PARM=&CONWPARM
          12:32:27  C1G0249I  //C1OUT1    DD DSN=&&OUTPUT,DISP=(,PASS),
          12:32:27  C1G0249I  //          SPACE=(TRK,(1,1),RLSE),UNIT=&UNIT,
          12:32:27  C1G0249I  //          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)
          12:32:27  C1G0249I  //*
          12:32:27  C1G0249I  //*  RUN A CONLIST STEP
          12:32:27  C1G0249I  //*
          12:32:27  C1G0249I  //STEP1    EXEC PGM=CONLIST,MAXRC=0,PARM=STORE
          12:32:27  C1G0249I  //C1LLIBO  DD  DSN=BST.QATEST.LISTING&C1STGNUM,DISP=SHR,
          12:32:27  C1G0249I  //             MONITOR=COMPONENTS
          12:32:27  C1G0249I  //C1BANNER DD  UNIT=&UNIT,SPACE=(TRK,(1,1)),
          12:32:27  C1G0249I  //             DCB=(RECFM=FBA,LRECL=121,BLKSIZE=6171)
          12:32:27  C1G0249I  //LIST01   DD  DSN=&&OUTPUT,DISP=(OLD,DELETE)
          12:32:27  C1G0006I  SYMBOLIC SUBSTITUTION:
          12:32:27  C1G0007I    SYMBOLIC CONLPARM DEFINED BY PROCESSOR: STORE
          12:32:27  C1G0007I    SYMBOLIC CONWPARM DEFINED BY PROCESSOR: EXPINCL(Y)
          12:32:27  C1G0007I    SYMBOLIC UNIT DEFINED BY PROCESSOR: SYSDA
          12:32:27  C1G0011I    PROCESSOR SYMBOLIC SUBSTITUTION OCCURRED -
          12:32:27  C1G0009I      ORIGINAL    : &CONWPARM
          12:32:27  C1G0009I      SUBSTITUTED : EXPINCL(Y)
          12:32:27  C1G0009I      ORIGINAL    : &UNIT
          12:32:27  C1G0009I      SUBSTITUTED : SYSDA
          12:32:27  C1G0009I      ORIGINAL    : BST.QATEST.LISTING&C1STGNUM
          12:32:27  C1G0009I      SUBSTITUTED : BST.QATEST.LISTING1
          12:32:27  C1G0009I      ORIGINAL    : &UNIT
          12:32:27  C1G0009I      SUBSTITUTED : SYSDA
          12:32:28  C1X0012I  STEP STEP1 INVOKING PROGRAM CONWRITE
          12:32:28  C1X0013I  PARM=EXPINCL(Y)
          12:32:28  C1G0023I  INCLUDE EXPANSION REQUESTED, BUT INCLUDE LIBRARIES HAVE NOT BEENINED FOR TYPE GMGCONW.
          12:32:31  C1G0132I  ELEMENT TESTELEM 01.00 WRITTEN TO DDNAME C1OUT1
          12:32:31  C1X0010I  STEP STEP1 PROGRAM CONWRITE COMPLETED, RC=0000
```

The above Execution Report is for statement 1 on the Endevor Syntax Request Report in the previous section. The report lists each step in the execution of the processor GMGCONW.

4.7.4 The Action Summary Report Section

The Action Summary Report consists of one line of information for each action performed, and provides:

- An overview of the job submitted, highlighting any "FAILED" requests in the left-most column (untitled).
- The name of the action performed and the name of the element it was performed on in the ACTION and ELEMENT fields.
- The processor return code in the PROC RC field. This is the highest return codes that the processor encountered during processing for that action.
- The Endevor return code in the NDVR RC field. This is the highest return code that Endevor encountered during processing for that action.
- FROM information for the element in the FROM INFORMATION fields. These fields indicate the location of the element prior to the action being performed. FROM information can be either a data set name (DSNAME=) or Endevor location, which consists of the environment, system, subsystem, type, and stage for the element.
- The time the action was completed in the ACTION TIME field.
- The action number assigned to this request in the Batch Execution Report in the ACTION NUMBER field.
- The statement number assigned to this statement in the Syntax Request Report in the STATEMENT NUMBER field.
- The number of statements written by a LIST action in the SCL WRITTEN field.

In the following example, note in the report that the add processing for element TESTELEM was successful, and its highest ENDEVOR RC was 0004. To find detail information for this element, look at action number 1 in the Batch Execution Report, and statement number 1 in the Syntax Request Report.

```
29MAR01 12:32                                                                                                  PAGE   1
                                    E N D E V O R   A C T I O N   S U M M A R Y   R E P O R T          REL:  X.XX  SERIAL XXXX
REQUESTED BY: ZSXGMG1Z
                                PROC  NDVR   +--------------  FROM  INFORMATION  --------------+  ACTION   ACTION   STMT    SCL
          ACTION    ELEMENT      RC    RC    ENVIRONMENT   SYSTEM    SUBSYSTEM   TYPE     STAGE    TIME    NUMBER  NUMBER WRITTEN
          ADD       TESTELEM    0000  0004   DSNAME=BST.SUPPORT.SRCLIB                          12:32:21       1       1
          END OF JOB.  HIGHEST ENDEVOR RC = 0004
```

Chapter 5. Displaying Endevor Information

5.1 The Display Options Menu

5.1.1 Overview

You can display information for any of several inventory components, using the Display Options Menu. To access the Display Options Menu, select option **1** on the Primary Options Menu.

5.1.2 Display Options Menu Panel

The Display Options Menu is shown below:

```
---------------------------  DISPLAY OPTIONS MENU  ----------------------------
 OPTION  ===>

    1  ELEMENT          - Display element/component list information
    2  FOOTPRINT        - Display footprinted members and compressed listings
    3  SITE             - Display site information
    4  STAGE            - Display stage information
    5  SYSTEM           - Display system definitions
    6  SUBSYSTEM        - Display subsystem definitions
    7  TYPE             - Display type definitions
    8  PROCESSOR GROUP  - Display processor group definitions
    9  APPROVER GROUP   - Display approver groups
    A  RELATE GROUP     - Display inventory area/approver group relationships
    E  ENVIRONMENT      - Display information about the current environment
    S  SITE SYMBOLS     - Display site symbols definitions
```

5.1.3 Options

Use this panel to select the type of information you want:

Use this option	To display:
1 Element	Element changes or a summary of the change history for an element, the contents of an element, or Master Control File information for an element.
2 Footprint	Footprint stored in load or source modules. Optionally display information from the corresponding element, which can be traced by the content of the footprint. You can also use this option to display any non-load module data set member, such as listing, CA-Panvalet libraries, and CA-Librarian libraries.
3 Site	Information about the current site.
4 Stage	Stage definitions for the current environment.
5 System	System definitions.

Use this option	To display:
6 Subsystem	Subsystem definitions.
7 Type	Type definitions.
8 Processor Group	Processor group definitions.
9 Approver Group	Approver group definitions.
A Relate Group	Inventory area/approver group relationships.
E Environment	Information about the current environment.
S Site Symbols	Site symbols definitions

5.2 Displaying Element Information

5.2.1 Display Elements/Component Lists Panel

To display element information, type **1** (ELEMENT) on the Display Options Menu and press ENTER. Endevor displays the Display Elements/Component Lists panel.

Note: The Display Elements/Component Lists panel shown here is the panel that displays for Endevor ACM users. If you do not have Endevor ACM at your site, this panel is called the Display Elements panel, and it does not allow you to display component list information. All of the element fields are the same.

```
------------------  Display Elements/Component Lists  ---------------------
OPTION  ===>

   blank - Display selection list      B - Browse element current level
   S - Display summary of levels       C - Display changes current level
   M - Display element master info     H - Display history current level

   Enter SX, BX, CX or HX to display component list information

                                LIST OPTIONS:
FROM Endevor:                    DISPLAY PROC GROUP NAME ===> N (Y/N)
  ENVIRONMENT ===> DOC              DISPLAY LIST            ===> Y (Y/N)
  SYSTEM      ===> FINANCE          WHERE CCID EQ           ===>
  SUBSYSTEM   ===> *                WHERE PROC GRP EQ       ===>
  ELEMENT     ===>                  DISPLAY SYS/SBS LIST    ===> N (Y/N)
  TYPE        ===>                  BUILD USING MAP         ===> N (Y/N)
  STAGE       ===>             D - CSTAGE       P - CPROD
```

Proceed as follows:

1. Identify the element and the information that you want to display on this panel, and press ENTER. The panel that Endevor displays next depends on the value in the DISPLAY SYS/SBS LIST field.
2. If you provided a wildcard in the SYSTEM and/or SUBSYSTEM fields and DISPLAY SYS/SBS LIST = **Y**, Endevor displays a System and/or Subsystem Selection List. Make selections as necessary.
3. Element Name Prompt

   You set the element name prompt option at the site-level by assembling the Endevor Customization table ENCOPTBL as follows:

   ```
   ENHOPT ELMNM_PROMPT=ON
   ```

   The following prompt panel displays when the element name is omitted from the ISPF panel and "Build Using Map = Y" in the ISPF panel:

```
-------------------------  Element Name Prompt  ------------------------------
COMMAND ===>



   ************************************************************************
   *                                                                      *
   *   You omitted the element name from the previous panel with 'Y'      *
   *   specified for search map.  A significant delay may occur while     *
   *   Endevor searches for elements that meet your selection criteria.   *
   *                                                                      *
   *                                                                      *
   *   If you wish to return to specify an element name, enter the END    *
   *   command.                                                           *
   *                                                                      *
   *   Otherwise, press the ENTER key to continue...                      *
   *                                                                      *
   ************************************************************************
```

4. If you provided a wildcard in the ELEMENT field, Endevor displays an Element Selection List or Confirmation panel, as indicated in the following table:

DISPLAY LIST =	BUILD USING MAP = Y	BUILD USING MAP = N
Y	Endevor displays a selection list of all elements in all map environments that meet search criteria.	Default. Endevor displays a selection list of all elements in the current environment that meet search criteria
N	Endevor displays a confirmation panel, indicating the number of elements selected (from all environments).	Endevor displays a confirmation panel, indicating the number of elements selected (from the current environment).

Use DISPLAY LIST = **N** with caution, especially in conjunction with BUILD USING MAP = **Y**. When you press ENTER at a Confirmation panel, you will have to view all the elements that have been selected.

5. The next step depends on the panel that appears:
   - If a Confirmation panel appears, press ENTER to view the requested display for the number of elements indicated on the Confirmation panel.
   - If an Element Selection List appears, use it to display information for one or more elements. Available displays include Summary of Levels, Element Master, Element Browse, Element Changes, or Element History. Each of these displays are discussed later in this chapter.

To return to the Display Options Menu, press END.

5.2.2 Fields

The Display Element/Component Lists panel fields are described next.

5.2.2.1 Option Field

Use option codes to specify the information you wish to display. To view component list information with Endevor ACM, append an "**X**" to option **S**, **B**, **C**, or **H**.

Select This Option	To Display
Blank	A list appropriate to the information supplied on the panel, as described earlier.
S	A Summary of Levels panel, showing a summary of change history for the element requested. From this panel, you can select a specific level of the element for display, using option **B, C,** or **H**.
M	An Element Master panel, showing Master Control File (MCF) information related to the element requested.
B	An Element Browse panel, showing all statements in the current level of the element, and the level at which each statement was inserted.
C	An Element Changes panel, showing all inserts and deletions made to the element as of the current level.
H	An Element History panel, showing all statements in all levels of the element, from the base level through the current level. The display shows the level at which each insertion/deletion occurred

5.2.2.2 From Endevor Fields

These fields contain information to describe the Endevor location of the element.

Field	Description
Environment	Name of the environment under which the element is defined (initially, the current environment). If the element is in a different environment, enter the environment's name in this field.
System	Name of the system under which the element is defined.
Subsystem	Name of the subsystem under which the element is defined.
Element	Name of the element for which you want to display information.

Field	Description
Type	Name of the element's type.
Stage	ID of the stage in which the element resides. This must be one of the values shown to the right of the field (unless you are changing environments).

5.2.2.3 List Options Fields

These options allow you to specify further the information you want to display.

Field	Description
Display Proc Grp Name	Specifies whether the name of the processor group associated with the element is displayed on the Element Selection list: **Y** (yes) or **N** (no).
Display List	Indicates whether you want to use list panels when requesting this action: **Y** (yes) or **N** (no). The default is **Y**.
Where CCID Eq	Specifies a CCID that Endevor uses to limit the selection list to only those elements whose last CCID matches the specified CCID. If omitted, Endevor does not limit the selection list by CCID.
Where Proc Grp Eq	Specifies a processor group that Endevor uses to limit the selection list to only those elements to which the processor group has been assigned. If omitted, Endevor does not limit the selection list by process or group.
Display SYS/SBS List	Indicates whether you want to go directly to the Element Selection List from the Display Elements/Component Lists panel. Acceptable values are: ■ **Y--** Provide individual selection lists as required by your entries on this panel. ■ **N--** Default. Bypass system and subsystem selection lists. **Note:** DISPLAY LIST = Y must be specified in order to see any of these lists.

Field	Description
Build Using Map	Indicates whether you want Endevor to search the map, starting at the FROM location, when building the Element Selection List. Acceptable values are: ■ **Y**--Search the map. ■ **N**--Default. Do not search the map. **Note:** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N. You cannot cancel the build process once it has begun. **Note:** The selection list contains elements whose types are defined at the From locataion. Elements whose types are defined later in the map do not appear if Build Using Map = **N**.

5.2.3 Element Selection List Panel

When you do not fully qualify the element name or stage ID on the Display Elements/Component Lists panel, Endevor displays the Element Selection List panel.

Note: If you fully specify all search criteria except stage, and the resultant list has only one element, Endevor does not display the Element Selection List.

Element Selection Lists are sorted alphabetically by element name, in map-sequence order. Whenever possible, you should fully qualify a system when requesting the selection list. If you cannot fully specify a system, make sure to look carefully at the Endevor location (environment/stage) and classification (system/subsystem/type) information associated with a located element to make sure it is the element for which you are looking.

Endevor supports the Locate command on Element Selection Lists.

To select the element(s) for which you want more information, enter an option value (Element Master panel--**M**, Summary of Levels panel--**S**, Element Browse panel--**B**, Element Changes panel-- **C**, or Element History panel--**H**) to the left of each element name and press ENTER.

```
-------------------------  ELEMENT SELECTION LIST  -----------  ROW 1 OF 8
COMMAND ===>                                                 SCROLL ===> PAGE
                                                             CURRENT PROCESSOR
ELEMENT    TYPE     ENVIRONMENT S SYSTEM   SUBSYSTEM  VV.LL DATE    GROUP
C1SD0000   ASMPGM   PRD         2 NDVR976  BASE       01.06 09JUN01 ASMIRN
C1SD1000   ASMPGM   PRD         2 NDVR976  BASE       01.25 17OCT01 ASMERNUL
C1SD3000   ASMPGM   PRD         2 NDVR976  BASE       01.01 17AUG01 ASMIRN
C1SD4000   ASMPGM   PRD         2 NDVR976  BASE       01.23 11MAR01 ASMERNUL
C1SEA#00   ASMPGM   PRD         2 NDVR976  BASE       01.06 15DEC01 ASMERNUL
C1SEAC00   ASMPGM   PRD         2 NDVR976  BASE       01.10 15JUN01 ASMERNUL
****************************** BOTTOM OF DATA ******************************
```

5.2.4 Fields

The Element Selection List panel fields are described next. All fields except the SELECTION field are display-only.

Field	Description
Selection (no title)	Used to select an element for further display.
Element	Name of the element.
Type	Name of the element type at the specified location.
Environment	Name of the environment where the listed element is located.
S (Stage)	ID of the stage where the listed element is located.
System	Name of the system in which the listed element is classified.
Subsystem	Name of the subsystem in which the listed element is classified.
VV.LL	Version/level for the element at this stage.
Current Date	Date when the current level was created. Format *ddmmmyy*.
Processor Group	Lists the processor group associated with the element.

5.2.5 Summary of Levels Panel

The Summary of Levels panel appears in the following situations:

- Display Elements/Component Lists panel when you select option **S** and uniquely qualify the element you want.
- Element Selection List panel when you select option **S** and DISPLAY LIST = **Y**.
- Confirmation panel when you select option **S** and DISPLAY LIST = **N.**
- Library Selection List panel when you type **S** next to an element level.

```
--------------------------  SUMMARY OF LEVELS  ---------  ROW 1 TO 5 OF 5
COMMAND ===>                                             SCROLL ===> PAGE
        Environment: DEV          System: LGNTLCL       Subsystem: PROCESS
        Element:     C9224420     Type:   PROCESS       Stage:     1
----------------------  SOURCE LEVEL INFORMATION  -----------------------
   VV.LL    USER     DATE     TIME      STMTS    INSERTS   DELETES    SYNC
   01.00    DA2DM47  02JUL01  08:18        48         0         0
   01.01    DA2DM47  02JUL01  08:31        36         3        15
   01.02    DA2DM47  02JUL01  09:08        36         1         1
   01.03    DA2DM47  02JUL01  09:16        36         1         1
   01.04    DA2DM47  02JUL01  12:05        37         4         3
*************************** BOTTOM OF DATA ******************************
```

The top part of this panel displays identification information about the element. The bottom part provides a summary of the element-level (source-level) history, listing each level of the element in the stage requested and information appropriate to that level.

To request additional information for one or more of the levels listed on the panel, enter an option value (Element Browse panel--**B**, Element Changes panel-- **C**, or Element History panel--**H**) to the left of the level(s) about which you want information, and press ENTER.

Note: If you selected multiple elements for display, press END to view the next Summary of Levels panel.

5.2.6 Fields

The Summary of Levels panel fields are described next.

5.2.6.1 Identification Fields

These fields specify the element's Endevor location. All fields are display-only.

Field	Description
Environment	Name of the current environment.
System	Name of the system under which the element is defined.
Subsystem	Name of the subsystem under which the element is defined.
Element	Name of the element for which the summary information is displayed.
Type	Name of the element type.
Stage	ID of the stage for which element information is shown.

5.2.6.2 Source Level Information Fields

These fields display summary information about all levels of this element. All fields except the SELECTION field are display-only.

Field	Description
Selection (no title)	Used to select an element level for additional information. Type the appropriate code (Element Browse--**B**, Element Changes--**C**, or Element History--**H**) in this column next to each element level for which you want additional information. These options are described for the Display Elements panel earlier in this section.
VV.LL	Version/level for the element at that stage (in *vv.ll* format).
User	Level user ID.
Date	Level date (in *ddmmmyy* format).
Time	Level time (in *hh:mm* format).
Stmts	Number of statements in this level.
Inserts	Number of statements inserted for the level.
Deletes	Number of statements deleted for the level.
Sync	Indicates whether this level was created through synchronization (**S**) or level consolidation (**C**).

5.2.7 Element Master

Master Control File information for elements appears on two Element Master panels. The first of these two Element Master panels appears from the:

- Display Elements panel when you select option **M** on the Display Elements panel and uniquely qualify the element you want.
- Element Selection List panel when you request option **M** and DISPLAY LIST = **Y**.
- Confirmation panel when you select option **M** and DISPLAY LIST = **N**.
- Library Selection List panel when you type **M** next to an element level.

To switch between the two Element Master panels, press ENTER. To return to the previous panel, press END.

Note: If you have selected multiple elements for display, press END to view the next Element Master panel.

5.2.8 Element Master Panel (1 of 2)

The first of the Element Master panels is shown next.

```
------------------------------  ELEMENT MASTER  ----------------------------
COMMAND ===>                                                 (PANEL 1 OF 2)
ELEMENT:  PROCXREF   ENV: DOC      SYS: ADMIN    SUB: STANDARD TYPE: PROCESS
PROC GRP: PROCESS    STG: A      VV.LL: 01.00          LAST ACTION: ADD
DESCRIPTION: ADDING A PROCESSOR                     SIGNOUT ID: ZSXLDG1
PKG ID (SOURCE): ADD                PKG ID (OUTPUT): ADD
LOCKED FOR PKG:  NEWPACKAGE
--------------------------  LAST ELEMENT ACTION  --------------------------
USERID:  ZSXLDG1    DATE/TIME: 10JAN01 37:PR         CCID:
COMMENT: ADDING A PROCESSOR                         ACTION:
NDVR RC: 0000       PROCESSOR: GPPROCSS  (GEN)    PROC RC: 0000
----------------------------  CURRENT SOURCE  ----------------------------
USERID:  ZSXLDG1    DATE/TIME: 10JAN01 15:37         CCID:
COMMENT: ADDING A PROCESSOR                       DELTA FMT: F
ADD/UPDATE FROM DSN: BST.TRD.SRCE(PROCXREF)
--------------------------------  GENERATE  --------------------------------
USERID:  ZSXLDG1    DATE/TIME: 10JAN01 15:37         CCID:
COMMENT: ADDING A PROCESSOR                       DELTA FMT: F
COMPONENT LIST VV.LL: N/A
                                                (Press ENTER for next panel)
```

5.2.9 Fields

The fields in the first Element Master panel are described next:

5.2.9.1 Identification Fields

These fields identify the element for which Master Control File information appears on these two panels.

Field	Description
Element	Name of the element.
Env	Environment in which the element is defined.
Sys	System in which the element is defined.
Sub	Subsystem in which the element is defined.
Type	Type to which the element has been assigned.
Proc Grp	Name of processor group for this element
Stg	Stage in which this element resides.
vv.ll	Version and level of this element.
Last Action	Last action performed against this element.
Description	Comment provided for the ADD action that created the base level of the element.

Field	Description
Signout ID	User ID of the person to whom the element is signed out.
Pkg ID (Source)	ID of package that last affected the source form of this element.
Pkg ID (Output)	ID of package that created the current generated (or output) form of this element. Backing out and backing in packages can affect the value that appears in this field. For example, if this element is part of two packages, PKG1 and PKG2, the following table shows the affect of four activities involving these packages on the PKG ID (SOURCE) and PKG ID (OUTPUT) fields. **Action** / **PKG ID (SOURCE)** / **PKG ID (OUTPUT)** Execute PKG1 — PKG1 — PKG1 Execute PKG2 — PKG2 — PKG2 Back out PKG2 — PKG2 — PKG1 Back in PKG2 — PKG2 — PKG2 Backing out PKG2 caused the output form of this element to revert to its state in PKG1. Subsequently backing in PKG2 then caused the output form of this element to revert to its state in PKG2.
Locked for Pkg	When the element locking feature has been enabled in the Endevor Options Table (ENCOPTBL), this field displays the package which has secured (locked) the element.

5.2.9.2 Last Element Action Fields

These fields provide information concerning the last action performed against the element.

Field	Description
Userid	User ID of person who requested the action.
Date/Time	Date and time of the action.
CCID	CCID specified for the action.
Comment	Comment specified for the action.
Action	Name of the Endevor action that was performed.

Field	Description
NDVR RC	Return code from action processing. Possible values are: ■ 00--When the action executed successfully. ■ 04--When a warning message is issued before a processor is invoked. This can occur, for example, when you specify OVERRIDE SIGNOUT on an action, or add a member with no source changes. ■ 08--When regression percentage exceeds the limit specified on a type definition, and the default severity of *C* is in effect. ■ 12--When the processor return code is greater than the MAXRC for any step in a processor, or when there is an error in action processing before or after invoking a processor. ■ 16--When an abend occurs.
Processor	Name of processor invoked by the action followed by the processor type - "MOVE" or "GEN" in parentheses.

Field	Description
PROC RC	Highest return code from the last execution of the named processor. The message "*FAILED*" appears here if the return code for any step in a processor exceeds the MAXRC for the processor. The MAXRC keyword is described in the *Extended Processors Guide*. The message "*PROC'D?*" appears here if the element has not been generated after being: ■ Restored or transferred from an archive data set. ■ Added or updated. When this message appears and the last action is RESTORE or TRANSFER, generating the element assures that the processor information taken from the archive data set is synchronized with current processor outputs. **For example,** if you deleted the element after it was last archived, the processor output was deleted as well. However, the processor information remained in the archive data set for the element and was restored or transferred with the other element information. If an element has the "*FAILED*" or "*PROC'D?*" message here, the element cannot be moved, and can only be transferred by specifying IGNORE GENERATE FAILED through option **2** on the Batch Options Menu.

5.2.9.3 Current Source Fields

These fields provide information about the current source for the element.

The DELTA FMT field indicates whether the element changes are stored in forward **(F)** or reverse **(R)** delta format. The ADD/UPDATE FROM DSN field identifies the data set from which the element was added.

5.2.9.4 Generate Fields

These fields provide information about the last action run against this element that caused output to be generated.

The COMPONENT LIST VV.LL field identifies the latest version and level of the component list for this element.

5.2.10 Element Master Panel (2 of 2)

To view the second Element Master panel, press ENTER. To return to the previous panel, press END.

```
------------------------------  ELEMENT MASTER  ------------------------------
COMMAND ===>                                                 (PANEL 2 OF 2
ELEMENT:  PROCXREF   ENV: DOC      SYS: ADMIN    SUB: STANDARD TYPE: PROCESS
PROC GRP: PROCESS    STG: A      VV.LL: 01.00           LAST ACTON: ADD
                                                        SIGNOUT ID: ZSXLDG1
--------------------------------  RETRIEVE  --------------------------------
USERID:             DATE/TIME:                    CCID:
COMMENT:
RETRIEVE TO DSN:
-----------------------------------  BASE  -----------------------------------
USERID:  ZSXLDG1    DATE/TIME: 10JAN01 15:37
COMMENT: ADDING A PROCESSOR
--------------------------  FROM CA-ENDEVOR LOCATION  ---------------------
USERID:             DATE/TIME:                  ACTION:
ELEMENT:            ENV:          SYS:          SUB:          TYPE:
    STG:          VV.LL:
                                             (Press ENTER for previous panel)
```

5.2.11 Fields

The fields in the second Element Master panel are described next:

5.2.11.1 Identification Fields

See the Identification Fields section for the first Element Master panel for descriptions of the ELEMENT, ENV, SYS, SUB, TYPE, PROC GRP, STG, VV.LL, LAST ACTION, and SIGNOUT ID fields.

5.2.11.2 Retrieve Fields

These fields provide information only when the last action performed against this element was RETRIEVE. Otherwise the fields will be empty.

The RETRIEVE TO DSN field identifies the target data set for the RETRIEVE action.

5.2.11.3 Base Fields

These fields provide information about the base level of this element. They show the user ID of the person who created the base level, the date and time that the base level was created, and the comment that was entered for the ADD action that created the base level.

5.2.11.4 From Endevor Location Fields

Information displays in these fields when this element has been moved or transferred from another Endevor location. They show the user ID of the person who requested the MOVE or TRANSFER action, the date and time that the action was performed, and the name of the action (MOVE or TRANSFER).

See the Identification Fields section for the first Element Master panel for descriptions of the ELEMENT, ENV, SYS, SUB, TYPE, STG, and VV.LL fields.

5.2.12 Element Browse Panel

The Element Browse panel appears from the:

- Display Elements panel when you select option **B** on the Display Elements panel, and uniquely qualify the element you want.
- Element Selection List panel when you select option **B** and DISPLAY LIST = **Y**.
- Confirmation panel when you select option **B** and DISPLAY LIST = **N.**
- Summary of Levels panel, when you type **B** next to an element level.
- Library Selection List panel when you type **B** next to an element level.

```
   Menu  Utilities  Compilers  Help

 BROWSE    USER001.FINANCE1.S1.EXE44.COPY             Line 00000000 Col 001 080
 Command ===>                                                Scroll ===> PAGE
******************************** Top of Data ********************************
********************************************************************************
********************************************************************************
**                                                                            **
** ELEMENT BROWSE                                          09MAY01  12:36  **
**                                                                            **
**    ENVIRONMENT:  DEMO        SYSTEM: PDS         SUBSYSTEM: DEMA           **
**    ELEMENT:      FINANCE1    TYPE:   COPY        STAGE ID:  1              **
**                                                                            **
**    SIGNED OUT TO: USER001                                                  **
**                                                                            **
********************************************************************************
********************************************************************************

------------------------- SOURCE LEVEL INFORMATION --------------------------

 VV.LL SYNC USER     DATE    TIME     STMTS CCID         COMMENT
 ----- ---- -------- ------- ----- -------- ------------ ------------------------
 01.00      USER001  03MAY01 11:34      100
GENERATED   USER001  03MAY01 11:34
```

The Element Browse panel displays all the statements in the element level and identifies the level at which each statement was inserted. By default, this panel displays the current level. To browse previous levels, go to the Summary of Levels panel, type **B** next to each level you want to browse, and press ENTER.

Note: If you have selected multiple elements to browse, press END to view the next Element Browse panel.

5.2.13 Fields

The Element Browse panel fields are described next:

5.2.13.1 Panel Title and Element Identification Fields

This area displays the panel title, Element Browse, with the current date and time shown to the right (*ddmmmyy hh:mm*). The following fields identify the element whose source information is displayed. All fields are display-only.

Field	Description
Environment	Name of the environment in which the element is defined.
System	Name of the system under which the element is defined.
Subsystem	Name of the subsystem under which the element is defined.
Element	Name of the element.
Type	Element type.
Stage	ID of the stage in which the element resides.

5.2.13.2 Source Level Information

This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. All fields are display-only.

Field	Description
VV.LL	Number that identifies the level of the element described on this line (in *vv.ll* format).
Sync	Indicates whether this level was created through synchronization (**S**) or level consolidation (**C**)
User	Level user ID.
Date	Level date (in *ddmmmyy* format).
Time	Level time (in *hh:mm* format).
Stmts	Number of statements in this level.
CCID	Level change control ID.
Comment	Level comment.

Field	Description
Generated	Information about the last run of the generate processor for any level of the element. This data includes: the ID of the user who requested the associated action, date and time of the Generate action, number of statements processed, and CCID and comments associated with the action, if any. If the generate processor has not been run for the element, this line reads THIS ELEMENT HAS NOT BEEN PROCESSED. If the element has been restored (or transferred to Endevor from an archive data set), but has not yet been generated, this line reads PROCESS?? (instead of GENERATED). This indicates that the status of the generate processor information taken from the archive data set during the restore (or transfer) may be out of sync with the current processor output, if any. For example, assuming you deleted the element at the time it was last archived, the processor output was deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.
Retrieved	Information describing the last time any level of the element was retrieved. This data includes: the ID of the user responsible, date and time of the RETRIEVE action, and any comments associated with the processing. If an element has been moved, signed in (using the SIGNIN action), restored, or transferred to Endevor from an archive data set since the last RETRIEVE, any information related to the last RETRIEVE is blanked out and is not reflected here.

5.2.13.3 Element Statements

This area lists each statement in the element as of the level requested. For each statement, it identifies the level at which the statement was inserted (and deleted, as appropriate). A percent (%) sign marks those statements that were inserted as of the level displayed. This is useful in searching for these statements (using the ISPF FIND command, for example). All fields are display-only.

Field	Description
Level (no title) columns 1-7	Level at which the statement shown to the right was inserted into the element (*+ll*). For statements inserted as of this level, a percent sign (%) precedes the level number.
Text (no title) columns 9-n	Text of the statement.

5.2.14 Element Changes Panel

The Element Changes panel appears from the:

- Display Elements panel when you select option **C** on the Display Elements panel and uniquely qualify the element you want.
- Element Selection List when you select option **C** and DISPLAY LIST = **Y**.
- Confirmation panel, when you select option **C** and DISPLAY LIST = **N**.
- Summary of Levels panel, when you type **C** next to an element level.
- Library Selection List panel, when you type **C** next to an element level.

```
 BROWSE -- ZSXJMA1.C1#1TMPL.LIST --------------- LINE 00000000 COL 001 080
 COMMAND ===>                                              SCROLL ===> CSR
******************************** TOP OF DATA  ***************************
********************************************************************************
********************************************************************************
**                                                                            **
** ELEMENT CHANGES                                        27MAY01  10:53  **
**                                                                            **
**    ENVIRONMENT:  DEMO        SYSTEM: FINANCE     SUBSYSTEM: ACCTREC  **
**    ELEMENT:      C1DEMOCB    TYPE:   COPYBOOK    STAGE:     QA       **
**                                                                            **
********************************************************************************
********************************************************************************
----------------------- SOURCE LEVEL INFORMATION  ----------------------
 VV.LL SYNC USER     DATE    TIME  STMTS CCID         COMMENT
 ----- ---- -------- ------- ----- ----- ------------ ---------------------
 01.00      ZSXJMA1  16MAR01 18:48     3 C1DEMO
 01.01      ZSXJMA1  05MAY01 10:15     5 JAB          DEMO STUFF
GENERATED   ZSXJMA1  05MAY01 10:15     5 JAB          DEMO STUFF
RETRIEVED   ZSXJMA1  05MAY01 10:11                    DEMO RETRIEVAL
 +01           01  SAMPLE-COPYBOOK-RECORD-MODIFIED.
```

The Element Changes panel displays all inserts and deletions made to the element between the specified level and its immediate predecessor. By default, this panel displays the current level. To view the changes from previous levels, go to the Summary of Levels panel, type **C** next to each level you want to browse, and press ENTER.

Note: If you have selected multiple elements for display, press END to view the next Element Changes panel.

5.2.15 Fields

The Element Changes panel fields are described next:

5.2.15.1 Panel Title and Element Identification

This area displays the panel title, Element Changes, with the current date and time shown to the right (*ddmmmyy hh:mm*). The fields that follow identify the element whose change history is displayed. All fields are display-only.

Field	Description
Environment	Name of the environment in which the element is defined.
System	Name of the system under which the element is defined.
Subsystem	Name of the subsystem under which the element is defined.
Element	Name of the element.
Type	Element type.
Stage	ID of the stage in which the element resides.

5.2.15.2 Source Level Information

summary of fields and elements

This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. All fields are display-only.

Field	Description
VV.LL	Number that identifies the element level described on this line (in *vv.ll* format).
Sync	Indicates whether this level was created through synchronization (**S**) or level consolidation (**C**).
User	Level user ID.
Date	Level date (in *ddmmmyy* format).
Time	Level time (in *hh:mm* format).
Stmts	Number of statements in this level.
CCID	Level change control ID.
Comment	Level comment.

Field	Description
Generated	Information to describe the last time the generate processor was run for any level of the element. This data includes: the ID of the user who requested the associated action, date and time of the GENERATE action, number of statements processed, and CCID and comments associated with the action, if any. If the generate processor has not been run for the element, this line reads "THIS ELEMENT HAS NOT BEEN PROCESSED." If the element has been restored (or transferred to Endevor from an archive data set), but has not yet been generated, this prompt reads "PROCESS??" (instead of "GENERATED"). This indicates that the status of the generate processor information taken from the archive data set during the restore (or transfer) may be out of sync with the current processor output, if any. For example, assuming you deleted the element at the time it was last archived, the processor output was deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.
Retrieved	Information to describe the last time any level of the element was retrieved. This data includes: the ID of the user responsible, date and time of the RETRIEVE action, and any comments associated with the processing. If an element has been moved, signed in (using the Signin action), restored, or transferred to Endevor from an archive data set since the last RETRIEVE, any information related to the last RETRIEVE is blanked out and is not reflected here.

5.2.15.3 Element Statements

This area lists each statement in the element that changed as of the requested level. For statements that were deleted, this area indicates the level at which the previous form of the statement was inserted. All fields are display-only.

Field	Description
Level (no title) columns 1-7	Level at which the statement to the right was inserted into the element (*+ll*). If the statement was deleted as of the level being displayed, a second number displays (*+ll-ll*). Either the add (*+ll*) or the delete (*-ll*) number references the level displayed.
Text (no title) columns 9-n	Text of the statement.

5.2.16 Element History Panel

The Element History panel appears from the:

- Display Elements panel when you request option **H** on the Display Elements panel, and uniquely qualify the element you want.
- Element Selection List panel when you request option **H** and DISPLAY LIST = **Y.**
- Confirmation panel when you request option **H** and DISPLAY LIST = **N**.
- Summary of Levels panel, when you type **H** next to an element level.
- Library Selection List panel.

```
 BROWSE -- ZSXJMA1.C1#1TMPL.LIST --------------- LINE 00000000 COL 001 080
 COMMAND ===>                                          SCROLL ===> CSR
****************************** TOP OF DATA  ***************************
********************************************************************************
********************************************************************************
**                                                                            **
** ELEMENT HISTORY                                        27MAY01  10:54  **
**                                                                            **
**    ENVIRONMENT:  DEMO        SYSTEM: FINANCE     SUBSYSTEM: ACCTREC  **
**    ELEMENT:      C1DEMOCB    TYPE:   COPYBOOK    STAGE:     QA       **
**                                                                            **
********************************************************************************
********************************************************************************
------------------------- SOURCE LEVEL INFORMATION  ----------------------
 VV.LL SYNC USER     DATE    TIME  STMTS CCID         COMMENT
 ----- ---- -------- ------- ----- ----- ------------ -------------------
 01.00      ZSXJMA1  16MAR01 18:48     3 C1DEMO
 01.01      ZSXJMA1  05MAY01 10:15     5 JAB          DEMO STUFF
GENERATED   ZSXJMA1  05MAY01 10:15     5 JAB          DEMO STUFF
RETRIEVED   ZSXJMA1  05MAY01 10:11                    DEMO RETRIEVAL
%+01           01  SAMPLE-COPYBOOK-RECORD-MODIFIED.
%+01               03 SAMPLE-COPYBOOK-FIELD1-MODIFIED PIC X(80).
%+01               03 SAMPLE-COPYBOOK-FIELD2-MODIFIED PIC X(80).
```

The Element History panel displays all statements that ever existed in the element, from the base level through the level requested. For each statement, the display identifies the level at which the statement was first inserted and the level at which it was deleted. By default, this panel displays the current level. To view the history of previous levels, go to the Summary of Levels panel, type **H** next to each level you want to view, and press ENTER.

Note: If you have selected multiple elements for display, press END to view the next Element History panel.

5.2.17 Fields

The Element History panel fields are described next:

5.2.17.1 Panel Title and Element Identification

This area displays the panel title with the current date and time shown to the right (*ddmmmyy hh:mm*). The fields that follow identify the element for which history information is displayed. All fields are display-only.

Field	Description
Environment	Name of the environment in which the element resides.
System	Name of the system to which the element is defined.
Subsystem	Name of the subsystem to which the element is defined.
Element	Name of the element.
Type	Element type.
Stage	ID of the stage in which the element resides.

5.2.17.2 Source Level Information

This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. All fields are display-only.

Field	Description
VV.LL	Number that identifies the element level described on this line (in *vv.ll* format).
Sync	Indicates whether this level was created through synchronization (**S**) or level consolidation (**C**).
User	Level user ID.
Date	Level date (in *ddmmmyy* format).
Time	Level time (in *hh:mm* format).
Stmts	Number of statements in this level.
CCID	Level change control ID.
Comment	Level comment.

Field	Description
Generated	Information about the last run of the generate processor for any level of the element. This data includes: the ID of the user who requested the associated action, date and time of the GENERATE action, number of statements processed, and CCID and comments associated with the action, if any. If the generate processor has not been run for the element, this line reads "THIS ELEMENT HAS NOT BEEN PROCESSED." If the element has been restored (or transferred to Endevor from an archive data set), but has not yet been generated, this line reads "PROCESS??" (instead of "GENERATED"). This indicates that the status of the generate processor information taken from the archive data set during the restore (or transfer) may be out of sync with the current processor output, if any. For example, assuming you deleted the element at the time it was last archived, the processor output was deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.
Retrieved	Information to describe the last time any level of the element was retrieved. This data includes: the ID of the user responsible, date and time of the RETRIEVE action, and any comments associated with the processing. If an element has been moved, signed in (using the Signin action), restored, or transferred to Endevor from an archive data set since the last RETRIEVE, any information related to the last RETRIEVE is blanked out and is not reflected here.

5.2.17.3 Element Statements

This area lists each statement that was ever a part of the element (up through the level being displayed), with an indication of the level at which the statement was inserted (and deleted, as appropriate). A percent sign (%) marks each statement that was inserted or deleted after the base level. This is useful in searching for these statements (using the ISPF FIND command, for example). All fields are display-only.

Field	Description
Level (no title) columns 1-7	Level at which the statement shown to the right was inserted (+*ll*). If the statement was deleted subsequently (at or before the level as of which the history is displayed), a second number displays (+*ll*-*ll*). For statements inserted or deleted after the base version, "%" precedes the level number at which the statement was inserted/deleted.
Text (no title) Columns 9-n	Text of the statement

5.3 Displaying Footprint Information

5.3.1 Overview

Footprints are encrypted identification information placed in source, object, and load modules by Endevor, to associate those modules with a particular element. Endevor uses footprints to keep source synchronized with executables. For more information about footprints, see the *Administration Guide*.

5.3.2 Endevor Footprint Display Panel

To display information about the source associated with an executable, select option **2** on the Display Options Menu. Endevor displays the Footprint Display panel, which allows you to:

- Display a member list, showing any available footprint information.
- Display a list of CSECTs for a load module member, the footprint information for each CSECT, and the footprint for the associated load module.
- Browse the source associated with footprinted members, CSECTs, or load modules.
- Request any of the element displays--the Summary of Levels panel, the Element Browse panel, the Element History panel, the Element Changes panel, and/or the Element Master panel--for footprinted members, CSECTs, or load modules.

```
---------------------- ENDEVOR - FOOTPRINT DISPLAY -------------------
Option  ===>

   blank - Member selection list
   I - Display load module CSECTS and Endevor footprints
   L - Display the library member


FROM ISPF LIBRARY:
   PROJECT ===>
   LIBRARY ===>
   TYPE    ===>
   MEMBER  ===>            THRU MEMBER ===>

OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
```

5.3.3 Fields

The Endevor - Footprint Display fields are described next:

5.3.3.1 Option Field

Options **I** and **L** are valid only when you provide a fully qualified member name on the Footprint Display panel.

Use This Option	To Display:
Blank	A member selection list, including the footprint information for each non-load member, if available. Endevor displays the list on the Library Selection List panel.
I	A list of CSECTs and any associated footprints for a specific load module. Endevor displays the CSECT list on the Endevor Load Module IDR Display panel.
L	The contents of a specified non-load module member. Endevor returns a standard ISPF browse panel showing the member requested.

5.3.3.2 From ISPF Library Fields

Specify the library for which you want a list, or the member for which you want information, in these fields.

Note: A member name is required for options **I** or **L**.

5.3.3.3 Other Partitioned or Sequential Data Set Field

Use these fields to identify the library in which the member you want resides, and optionally, the member name itself, in the format '*library name*(*member name*)'. To indicate that a range of members in the data set should be listed, enter the first data set name in the OTHER PARTITIONED OR SEQUENTIAL DATA SET field, and specify the final member in the THRU MEMBER field.

5.3.4 Library Selection List

When you leave the OPTION field blank on the Footprint Display panel, Endevor displays a Library Selection List showing all the members in the specified library. For each footprinted member, Endevor includes the footprint information. The LIBRARY field displays the library from which the list was produced.

```
FOOTPRINT  ---------- LIBRARY SELECTION LIST ------  ROW 30 TO 40 OF 111
Command ===>                                          Scroll ===> CSR
                  Library: BST.NDVRC1.SRCLIB
   I - Display load module CSECTS and Endevor footprints
   L - Display the library member
 For Endevor Elements:
   B - Browse element        C - Show changes only   S - Show change summary
   H - Show change history   M - Show Master Record
            |--------------------  F O O T P R I N T  ------------------|
    MEMBER    SYSTEM   SUBSYSTEM ELEMENT    TYPE     S  VV.LL  DATE   TIME
    BC1PACRT  RGASYST  UTILITY   BC1PACRT   ASMEXITS 1  01.02 23SEP01 15:49
    BC1PAL10
    BC1PAPNT
    BC1PAPRV  RGASYST  UTILITY   BC1PAPRV   ASMEXITS 1  01.13 23SEP01 16:22
    BC1PAREV  RGASYST  UTILITY   BC1PAREV   ASMEXITS 1  01.03 23SEP01 14:32
    BC1PCRE7
    BC1PELN1
    BC1PELN2
    BC1PELN3
    BC1PINIT
    BC1PINVB  NDVR250  INTERNAL  BC1PINVB   ASMIPGMR 2  01.03 12JUL01 16:23
```

5.3.5 Fields

The Library Selection List panel fields are described next:

5.3.5.1 Option Field

To select the members you want to view, type the appropriate option value to the left of the member name.

Note: The member must have a footprint in order to select option **S, B, H, C,** or **M**.

Use This Option	To Display:
I	Endevor Load Module IDR Display, showing the footprint for each CSECT, and for the associated load module.
L	ISPF panel showing the contents of the member.
S, B, H, C, M	One of the panels described under "Display Element Information:" respectively, the Summary of Levels panel, the Element Browse panel, the Element History panel, the Element Changes panel, or the Element Master panel.

5.3.5.2 Member Field

The MEMBER field displays the name of the library member for which footprint information is provided.

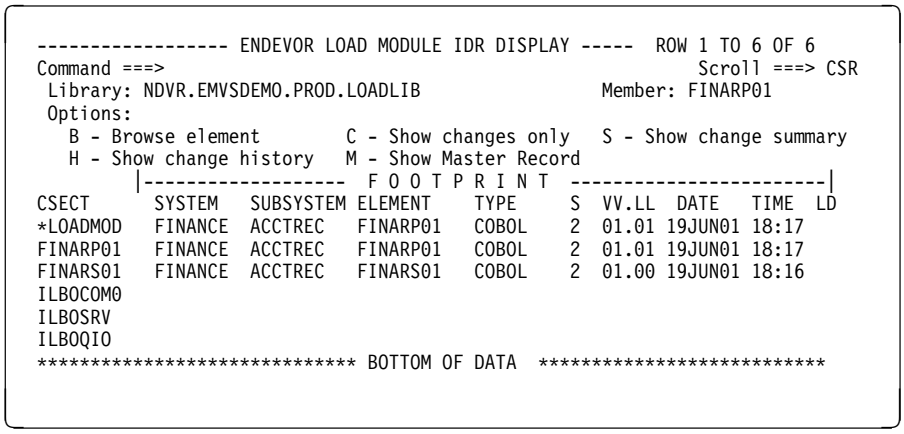
5.3.5.3 Footprint Fields

These fields show information stored in the footprint for source, object, and processor-output members. All fields are display-only.

Field	Description
System	Name of the system under which the corresponding element is defined.
Subsystem	Subsystem under which the element is defined.
Element	Name of the Endevor element that corresponds to the member.
Type	Name of the element type
S	ID of the stage in which the element was processed to create this member.
VV.LL	Version/level of the element processed to create this member (*vv.ll*).
Date	Date the member was footprinted (*ddmmmyy*).
Time	Time the member was footprinted (*hh:mm*).
LD	This field has a value of **Y** if this footprint was created by the Endevor load utility. Load utility footprints cannot be used to verify element integrity. They indicate only the location to which the element was loaded, and the date and time when the load took place.

5.3.6 Endevor Load Module IDR Display Panel

When you select option **I** and specify a member on the Footprint Display panel or the Library Selection List, Endevor displays the Load Module IDR Display panel, showing each CSECT in the selected load module. For those CSECTs that are footprinted, it includes the footprint data. The load module's library and member names are identified in the LIBRARY and MEMBER fields.



5.3.7 Fields

The Endevor Load Module Display fields are described next:

5.3.7.1 Option Field

To select the CSECTs you want to view, type the appropriate option value to the left of the CSECT name.

Use This Option	To Display:
S	Summary of Levels panel.
B	Element Browse panel.
H	Element History panel.
C	Element Changes panel.
M	Element Master panel.

5.3.7.2 CSECT Field

The CSECT field displays the name of the CSECT for which footprint information is shown to the right.

If *LOADMOD appears in the CSECT field, the displayed footprint is for the load module associated with the CSECTs listed on the panel.

If no information is displayed to the right, the CSECT has not been footprinted.

5.3.7.3 Footprint Fields

These fields show information stored in the CSECTs' footprints. All fields are display-only.

Field	Description
System	Name of the system under which the corresponding element is defined.
Subsystem	Name of the subsystem under which the element is defined.
Element	Name of the Endevor element that corresponds to the CSECT.
Type	Name of the element type.
S	ID of the stage in which the element was processed to create this CSECT.
VV.LL	Version/level of the element processed to create this CSECT (*vv.ll*).
Date	Date the CSECT was footprinted *(ddmmmyy).*
Time	Time the CSECT was footprinted (*hh:mm*).
LD	This field has a value of **Y** if this footprint was created by the Endevor load utility. Load utility footprints cannot be used to verify element integrity. They indicate only the location to which the element was loaded, and the date and time when the load took place.

5.3.8 ISPF Browse Panel for a Footprinted Member

When you request option **L** and specify a member on the Footprint Display panel or the Library Selection List, Endevor displays the ISPF Browse panel for a Footprinted Member. It is a standard ISPF browse panel, showing the source for the specified member. To return to the Footprint Display panel or the Library Selection List, press END.

```
BROWSE -- BST.C1DEMO.CNTL(BC1JPAN) ---------------- LINE 00000000 COL 001 080
 COMMAND ===>                                          SCROLL ===> CSR
******************************** TOP OF DATA  ******************************
//*  ( COPY JOBCARD )
//*********************************************************************
//*                                                                   *
//*   BC1JPAN  - THIS JOB WILL LINKEDIT THE NECESSARY PANVALET        *
//*              SOFTWARE TO PROVIDE THE CA-ENDEVOR PANVALET SUPPORT  *
//*   PAMLIB  -  IS THE CURRENT SYSTEM PANVALET LIBARARY AND SHOULD   *
//*              BE MODIFIED FOR YOUR SITES NAMING                    *
//*                                                                   *
//*********************************************************************
//PANLINK  EXEC PGM=IEWL,PARM='LIST,NCAL,RENT,XREF,SIZE=(256K,64K)'
//SYSLMOD  DD  DISP=SHR,DSN=iprfx.iqual.CONLIB
//PAMLIB   DD  DSN=SYS2.PANVALET.LOAD,DISP=SHR
//SYSUT1   DD  UNIT=tdisk,SPACE=(CYL,(5,3))
//SYSPRINT DD  SYSOUT=*
//SYSLIN   DD  *
   INCLUDE SYSLMOD(C1PIPAM)
    INCLUDE PAMLIB(PAM)
   ENTRY C1PIPAM1
   NAME  C1PIPAM1(R)
   INCLUDE SYSLMOD(C1PIPAM)
    INCLUDE PAMLIB(PAM)
```

5.4 Displaying Site Definitions

5.4.1 Overview

To display the site definitions defined during installation, select option **3** on the Display Options Menu. Endevor displays the Site Information panel. The values displayed on this panel are obtained from your current Endevor Defaults Table. (For more information on the definition process, see the *Installation Guide*.) To return to the Display Options Menu, press END.

5.4.2 Site Information Panel

The Site Information panel is shown next.

```
---------------------- Site Information from C1DEFLTS -------------------------
Command ===>

 Customer Name..... COMPUTER ASSOCIATES, INC.
 ------------------ Function Controls --------------------      - Options -
 Site ID........... 0          Access Table...... BC1TNEQU      ASCM..... Y
 Release........... B4000C     SMF Record Number. 222           DB2...... N
 Environments...... 4          Library System.... PV            EDITELM.. Y
 Userid Start...... 1          Library Program... LIBRARV       ELINK.... Y
 Userid Length..... 7          VIO Unit.......... VIO           ESSI..... Y
 Batch ID.......... 0          Work Unit......... SYSDA         INFO..... N
 SPFEDIT QNAME..... SPFEDIT    Work Volser.......               LIBENV... Y
 SYSIEWL QNAME..... SYSIEWLP   Lines per Page.... 60            NETMAN... N
 Authorized Tables. REQUIRED   MODHLI............               PDM...... Y
 Gen in place/SO... Y          Signout on fetch.. Y             PROC..... Y
 CA-LSERV JRNL SBS.            ELINK XLTE TBL....
 PITR Journal Grp..            Mixed Format...... (NONE)
 SYMBOLICS Table... ESYMBOLS
                                                  (Press Enter for Next Panel)
```

```
---------------------- Site Information from C1DEFLTS -------------------------
Command ===>

 ------------------------- Package Processing Options -------------------------
 Approval Required..... Y   Cast Security......... Y  Security.. APPROVER
 Foreground Execution.. Y   Component Validation.. O
 High-level Index for Generated Remote Pkg Ship JCL...

 --------------------------- Control Data Set Names ---------------------------
 Element Catalog............ BST.PERM40QA.ELMCATL
 Package Control File....... BST.PERM40QA.PACKAGE
 Installation Macro Library. BST.QAP40S2.SOURCE
 CCID Validation Data Set...
 ACM Index Root Data Set.... BST.PERM40QA.ACMROOT
 ACM Index Xref Data Set.... BST.PERM40QA.ACMXREF

 --------------------------- CA-7 Interface Values ----------------------------
 CA-7 Region CCI Nodename... A44SENF
 JCL Data Set Index Number..
 JCL Data Set Index Symbol.. &ENDEVOR
 JCL Data Set Name.......... APCDAL.ENDEVOR.JCLLIB

                                              (Press Enter for Previous Panel)
```

This section describes the panel fields.

5.4.2.1 Customer Name Field

Your company name appears at the top of this screen.

5.4.2.2 Function Controls Fields

Field	Description
Site ID	ID assigned to the current site.
Release	Volume serial number of the installation tape.
Environments	Number of environments defined at the current site.
Userid Start	First position within a user ID that is compared for ownership (that is, for signout and override signout processing). This field is used when the USERID BATCHID field is **0** (JOBNAME).
Userid Length	Length of the user ID that is compared for ownership. This field is used with the USERID START field when the USERID BATCHID field is **0** (JOBNAME).

Field	Description
Batch ID	Where the user ID associated with a batch job is extracted: ■ **0** — From the JOBNAME; the user ID is checked for validity using the userid start and length parameters as established above. ■ **1** — From the USER parameter specified on the job card submitted with the job. If no USER parameter is defined, you receive an error message. ■ **2** — From the USER parameter if it is specified on the jobcard or, if no USER parameter has been specified, from the JOBNAME. The user ID is validated using the user ID start and length parameters as established above.
SPFEDIT QNAME	Queue name used when Endevor issues an enqueue on a sequential or partitioned data set (not RECFM=U), to prevent simultaneous update to that data set. The data set may be a source library, object library, or other user library. The resource name for the enqueue is the data set name.
SYSIEWL QNAME	Queue name used when Endevor issues an enqueue on a PDS defined with RECFM = U (for example, a load library), to prevent simultaneous update to that PDS. The resource name for the enqueue is the data set name.
Authorized Tables	Indicates whether Endevor's security tables have to be loaded from authorized libraries. Values are: ■ **Require** — authorized libraries are required. ■ **Allow** — unauthorized libraries are allowed, but Endevor issues a warning message. ■ **Ignore** — Endevor does not check the library's authorization.
Gen in place/SO	Indicates, on a site level, whether Endevor is to perform a Generate in-place with or without signout. ■ **Y** — An element is signed out to the user who performs a Generate in-place action. This is the default. ■ **N** — An element retains its signout setting. Endevor will not signout an element to a user who performs a Generate in-place action.
CA-LServ SUBSYS	The subsystem name associated with the L-Serv address space. This field must be specified if L-Serv is used to control one or more Endevor control files and the default L-Serv subsystem name is not used.

Field	Description
PITR Journal Grp	An L-Serv journal group ID that relates the package data set named in this macro to a specfiec set of L-Serv journal files. of this parameter enables journaling of changes to Master Control Files and the the Package Control File. The format is: (gggg,nnnn) Where: **gggg** The journal group ID associated with the package journal files. **nnnn** The journal group subsystem ID. For more information, see the *Utilities Guide*.
Site Symbol Tbl	Name of a load module containing the site symbol definition table created by the user. For more information, see the *Installation Guide*.
Access Tbl	Name of the Access Security Table currently in use (applicable for native security).
SMF Record Number	Record number assigned to SMF records written out by Endevor.
Library System	Indicates the library management system at your site: ■ **LB** — AllFusion CA-Librarian and PDS ■ **PV** — AllFusion CA-Panvalet and PDS ■ **blank** — OS/PDS only
Librarian Program	Applicable only if your library management system is AllFusion CA-Librarian (LB). This entry indicates the name of the AllFusion CA-Librarian load module for your site.
VIO Unit	Symbolic device name for temporary disk data sets that are stored on a virtual I/O unit.
Work Unit	Symbolic device name for temporary disk data sets that are not stored on a virtual I/O unit.
Work Volser	Volume serial number of the disk used to store temporary data sets.
Lines/page	Number of lines printed per page, for reports generated by Endevor.

Field	Description
MODHLI	Allows you to assign a prefix other than SYSyyddd to a temporary data set, creating a pseudo-temporary data set. This applies to temporary data sets that are allocated DISP=MOD at any step in a processor only. Regular temporary data sets, which are not DISP=MOD, use the standard OS/390 temporary data set name. This prefix appears as the first node of the data set name. The value specified is a high-level qualifier, which all Endevor users are authorized to use when allocating, deleting, and opening files for output. The effective name generated is: modhli.Dyyddd.Thhmmss.RA0.jobname.ddname Where: **modhli** The data specified in the MODHLI operand **yyddd** Julian date **hhmmss** Time in hours, minutes, and seconds **jobname** Same value as jobname **ddname** DDname specified in the processor RA0 is used instead of RA000 to accommodate 8-byte MODHLI and 8-byte DDnames. If MODHLI is not specified in the Defaults Table, the effective name is: SYSyyddd.Thhmmss.RA0.jobname.ddname
Signout on Fetch	Indicates if the fetched element is signed out to you. Valid values are: ■ **Y** — The element is signed out when it is fetched, unless it is signed out by someone else. ■ **N** — The element is not signed out. This value affects Add (Fetch), Generate (Copyback), Move (Fetch), Transfer (Fetch), Search and Replace (Fetch) and Quick-Edit.
Elink Tran Tbl	Defines the ELink translation tables.

Field	Description
Mixed Format	Indicates whether Endevor accepts mixed-case entries in CCID, COMMENT, and DESCRIPTION fields. Values are: ■ **CCID** — accept mixed-case in CCID fields. ■ **Comment** — accept mixed-case in COMMENT fields. ■ **Description** — accept mixed-case in DESCRIPTION fields. ■ **All** — accept mixed-case in all three fields. ■ **None** — do not accept mixed-case in any field.

5.4.2.3 Options Fields

The information coded in this section indicates whether you have additional Endevor facilities (such as ACM or ESI) in use at your site at this time. These fields are display-only.

Field	Description
ASCM	Indicates if the Endevor ACM facility is installed: **Y** or **N**
DB2	Indicates if the Endevor for DB2 facility is installed: **Y** or **N**
ELINK	Indicates if the Endevor Link is installed: **Y** or **N**
ESI	Indicates if the Endevor ESI facility is installed: **Y** or **N**
INFO	Indicates if the Endevor Information/Management Interface facility is installed: **Y** or **N**
LIBENV	Indicates if you have the ability to use AllFusion CA-Librarian or AllFusion CA-Panvalet with Endevor: **Y** or **N**
NETMAN	Indicates if the Endevor Netman Interface facility is installed: **Y** or **N**
PDM	Indicates if the Endevor Parallel Development Manager (PDM) facility is installed: **Y** or **N**
PROC	Indicates if you have the ability to run processors at your site: **Y** or **N**

5.4.2.4 Package Processing Fields

These fields are display-only.

Field	Description
Approval	Indicates whether packages must be approved: **Y** or **N**
Foreground Execution	Indicates whether packages may be executed in foreground.
Generated High-lvl Index for Remote PKG JCL	The data set name used for remote package shipments.
Cast Security	Indicates whether to check security authorizations for every action in a package for the user ID requesting package cast: **Y** or **N**
Component Validation	Indicates whether component validation is enabled for packages. Values are: ■ **Y** — validation is required. ■ **O** — validation is optional. ■ **W** — validation is optional, but Endevor generates a warning if it is not selected.
Security	Indicates the type of security controlling the package options. **APPROVER** — The site is restricting package actions to package approvers. **ESI** — The site is controlling package options through an external security package such as CA-ACF2, CA-Top Secret, or IBM RACF via the ESI interface. **MIGRATE** — The site is in transition between Approver security and ESI security. Both are checked. **Caution!** The approver security rules supersede the ESI security rules. If the user is granted access to the package by the approver rules, ESI is not invoked. ESI is invoked only when the user does not belong to any approver groups associated with the package. (If there are no approver groups associated with the package no access restrictions apply. This occurs with ALL packages before they are CAST.)

5.4.2.5 Control Data Set Names Fields

The following fields are display-only.

Field	Description
Element Catalog	Name of the file containing the element catalog.
Package Control File	Identifies the data set used in this environment to store packages.
Endevor Macro Library	Data set name of the source library established for this site during installation. This is the library that contains the Endevor macros.
CCID Validation Data Set	Data set name of the sequential file containing the definitions of the valid CCIDs established for this site. This field is blank if CCID validation is not in use.
ACM Query Root Data Set	The name of the VSAM file your site uses to store the name of each Endevor element and all its related components. The recommended name is uprfx.uqual.ACMROOT.
ACM Query Xref Data Set	The name of the VSAM file your site uses to store the name of each Endevor element and all its related components. The recommended name is uprfx.uqual.ACMROOT.

5.4.2.6 CA-7 Interface Values Fields

Field	Description
CA-7 Region CCI Nodename	CCI Nodename assigned to the CA-7 address space.
JCL Data Set Index Number	Sequence number associated with the CA-7 DEMAND JCL library.
JCL Data Set Index Symbol	Symbol associated with the CA-7 DEMAND JCL library.
JCL Data Set Name	Data Set name of the CA-7 JCL DEMAND library.

5.5 Displaying Stage Information

5.5.1 Overview

To view the two stage definitions for the current environment, as established during installation, select option **4** on the Display Options Menu. Endevor displays the Stage Information panel. By default, this panel displays the stages for the current environment. To view the stages for a different environment, enter that environment's name in the CURRENT ENV field and press ENTER. To return to the Display Options Menu, press END.

5.5.2 Stage Information Panel

The Stage Information panel is shown next.

```
----------------------------  STAGE INFORMATION  ----------------------------
 COMMAND ===>

 CURRENT ENV ===> DEMO
 NEXT    ENV:     QAPROD      STAGE ID: 1

 STAGE 1 INFORMATION:
    ID:                   Q
    Name:                 QA
    Title:               QUALITY ASSURANCE
    MCF data set name:   ZSPRODV1.C1DEMO.QA.CONTROL

 STAGE 2 INFORMATION:
    ID:                   P
    Name:                 PROD
    Title:               PRODUCTION
    MCF data set name:   ZSPRODV1.C1DEMO.PROD.CONTROL
```

5.5.3 Fields

The Stage Information panel fields are described next. All fields except CURRENT ENV are display-only.

Field	Description
Current Env	Name of the environment for which the stage definitions are shown.
Next Env	Name of the next environment on the map.
Stage ID	Designates first map location in the next environment.

Field	Description
Stage 1 Information	Stage 1 definition information includes the following: ■ **ID--** Stage ID. ■ **Name--** Stage name. ■ **Title--** Stage title. ■ **MCF data set name--** Data set name of the Stage 1 Master Control File (MCF).
Stage 2 Information	Stage 2 definition information includes the following: ■ **ID--** Stage ID. ■ **Name--** Stage name. ■ **Title--** Stage title. ■ **MCF data set name--** Data set name of the Stage 2 Master Control File (MCF).

5.6 Displaying System Definitions

5.6.1 Overview

To display the system definitions for an environment, select option **5** on the Display Options Menu. Endevor displays the System Display panel, which allows you to identify the environment and system you want to view. When you press ENTER, Endevor displays the appropriate System Definition panel.

Note: If you do not know the system's name, leave the SYSTEM field blank, or enter a partial name, and press ENTER to view the System Selection List.

5.6.2 System Display Panel

The System Display panel is shown next.

```
----------------------------  SYSTEM DISPLAY  ------------------------------
 OPTION  ===>

    blank - Display system definition

 ENVIRONMENT ===> DEMO

 SYSTEM      ===>
```

5.6.3 Fields

The System Display fields are described next:

Field	Description
Option	Always blank for display.
Environment	Name of the environment under which the system is defined (initially, the current environment). If the system is in a different environment, enter the environment's name in this field.
System	Name of the system you want. Leave blank to request a System Selection List showing all systems. Supply a name mask to restrict the list to those systems whose names begin with the characters specified. See the section Name Masking for more information. on specifying a mask character.

5.6.4 System Definition Panel

After you specify a system, Endevor displays the appropriate System Definition panel. When you have finished viewing the information, press END.

Note: If you selected multiple system definitions for display, press END to view the next System Definition panel.

```
DISPLAY -------------------- SYSTEM DEFINITION --------------------------------
COMMAND ===>

CURRENT ENV:  SMPLTEST         NEXT    ENV:     SMPLPROD
SYSTEM:           ADMIN        NEXT SYSTEM ===> ADMIN
SYSTEM TITLE ===> ENDEVOR ADMINISTRATION APPLICATIONS
UPDATED:          15OCT01 14:36 BY USER001

GENERAL OPTIONS:
   COMMENT ===> Y (Y/N)      CCID ===> Y (Y/N) REQ ELM JUMP ACK ===> Y (Y/N)
ELEMENT REGISTRATION OPTIONS:
   DUPLICATE ELEMENT NAME CHECK   ===> Y (Y/N) MSG SEVERITY LVL ===> E (W/C/E)
   DUPLICATE PROC O/P TYPE CHECK  ===> N (Y/N) MSG SEVERITY LVL ===>   (W/C/E)

SIGN-IN/SIGN-OUT OPTIONS:
   ACTIVATE OPTION      ===> Y (Y/N)
   VALIDATE DATA SET    ===> N (Y/N)

PROCESSOR TRANSLATION OUTPUT LIBRARIES:
   STAGE 1 LOAD LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLOAD
   STAGE 1 LIST LIBRARY ===> CA.ENDEVOR.SMPLEMER.PRCSLIST
   STAGE 2 LOAD LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLOAD
   STAGE 2 LIST LIBRARY ===> CA.ENDEVOR.SMPLPROD.PRCSLIST
------------------------------------------------------------------------------
```

5.6.5 Fields

The System Definition panel fields are described next:

5.6.5.1 Identification Fields

The SYSTEM, SYSTEM TITLE, and NEXT SYSTEM fields on this panel identify the system. All fields are display-only.

Field	Description
Current Env	Name of the current environment.
Next Env	Name of the next environment on the map.
System	Name of the current system.
System Title	Descriptive title for the system (1-50 characters).
Next System	Name of the system at the next stage on the map. When you access this panel in create or update mode, you can enter or change the name in this field.

Field	Description
Updated	Displays the date, time, and user ID of the last user to update the system definition.

5.6.5.2 General Options Fields

These fields give the general options for the system.

Field	Description
Comment	Indicates whether there must be a comment for actions against this system. Acceptable values are: ■ **Y**--Each action must have a comment. ■ **N**--Default. Comments are not required for actions.
CCID	Indicates whether there must be a CCID for actions against this system. Acceptable values are: ■ **Y**--Each action must have a CCID. ■ **N**--Default. CCIDs are not required for actions.
Req Elm Jump Acknowledgment	Indicates whether users must specify ACKNOWLEDGE ELM JUMP = Y when moving elements. Acceptable values are: ■ **Y**--User must specify ACKNOWLEDGE ELM JUMP = Y. ■ **N**--Default. User does not have to specify ACKNOWLEDGE ELM JUMP = Y.

5.6.5.3 Element Registration Options Fields

These fields govern the status of element registration.

Field	Description
DUPLICATE ELEMENT NAME CHECK	This parameter governs the status of element registration at the system and subsystem level. To activate the checking of duplicate names at the system and subsystem level, enter a Y in this field. To define how you want Endevor to proceed when it encounters two identically named elements, specify one of the following values for the MSG SEVERITY LVL parameter located next to the DUPLICATE ELEMENT NAME CHECK parameter: ■ **E**—The same element name exists within another subsystem under the same system. The action is terminated, and an error message is issued. ■ **C**—The same element name exists within another subsystem under the same system. The action is performed, and a caution message is issued. ■ **W**—The same element name exists within another subsystem under the same system. The action is performed, and a warning message is issued.
DUPLICATE PROC O/P TYPE CHECK	This parameter governs the status of element registration at the processor group level. To activate the checking of duplicate processor output types, enter a Y in this field. To define how you want Endevor to proceed when it encounters two elements with the same output type, specify one of the following values for the MSG SEVERITY LVL parameter located next to the DUPLICATE PROC O/P TYPE CHECK parameter: ■ **E**—The same element name and same output type exist within the same system and different type. The action is terminated, and an error message is issued. ■ **C**—The same element name and same output type exist within the same system and different type. The action is performed, and a caution message is issued. ■ **W**—The element name already exists within the same system and has the same processor output type associated with it. The action is performed, and a warning message is issued.

5.6.5.4 Signin/Signout Options Fields

These fields contain definitions of the signin/signout functions for the system.

Activate Option	**Y** (yes) if the signin/signout facility is in use for this system; otherwise, **N** (no).
Validate Data Set	**Y** (yes) if the data set validation facility is in use for this system; otherwise, **N** (no). When an element is retrieved, a RETRIEVE TO data set name (and member name if the data set is a library) is placed in the element master record. When an ADD or UPDATE action is performed against an element, Endevor compares the RETRIEVE TO data set name (and member name if applicable) to the source input data set and member name specified for the action. If the data set (and member) names match, the action continues. If the names do not match, Endevor checks the value in the SIGNOUT OVERRIDE field. If this value is **Y**, processing continues. If this value is **N**, the action fails.

5.6.5.5 Last System Backup Fields

These display-only fields contain the date and time of the most recent backup of the system. They appear on the System Definition panel only in display and delete modes.

Field	Description
Date	Date of most recent system backup.
Time	Time of most recent system backup.

5.6.5.6 Processor Translation Output Libraries Fields

These fields contain the names of the Processor Load and List Libraries for the system.

Field	Description
Stage 1 Load Library	Name of the Stage 1 processor load library for this system.
Stage 1 List Library	Name of the Stage 1 processor listing library for this system.

Field	Description
Stage 2 Load Library	Name of the Stage 2 processor load library for this system.
Stage 2 List Library	Name of the Stage 2 processor listing library for this system

For more information on these libraries, see the *Extended Processors Guide*.

5.7 Displaying Subsystem Definitions

5.7.1 Overview

To display the subsystem definitions for an environment, select option **6** on the Display Options Menu. Endevor returns the Subsystem Display panel, which allows you to identify the environment, system, and subsystem you want displayed. When you press ENTER, Endevor displays the appropriate Subsystem Definition panel.

Note: If you do not know the system or subsystem's name, leave the SYSTEM and/or SUBSYSTEM fields blank, or enter a partial name, and press ENTER to view the System Selection List and/or the Subsystem Selection List.

5.7.2 Subsystem Display Panel

The Subsystem Display panel is shown next:

```
----------------------------  SUBSYSTEM DISPLAY  ---------------------------
 OPTION  ===>

    blank - Display subsystem definition

 ENVIRONMENT ===> DEMO

 SYSTEM      ===>

 SUBSYSTEM   ===>
```

5.7.3 Fields

The Subsystem Display fields are described next:

Field	Description
Option	Always blank for display.
Environment	Name of the environment under which the subsystem is defined (initially, the current environment). If the subsystem is in a different environment, enter the environment's name in this field.
System	Name of the system in which the subsystem is defined. Leave blank to request a System Selection List showing all systems. Fill in a name mask to limit the list according to the characters specified.

Field	Description
Subsystem	Name of the subsystem you want to display. Leave blank to request a Subsystem Selection List showing all subsystems. Fill in a name mask to limit the list according to the characters specified.

5.7.4 Subsystem Definition Panel

After you specify a system and subsystem, Endevor displays the appropriate Subsystem Definition panel. When you have finished viewing the information, press ENTER.

Note: If you selected multiple subsystem definitions for display, press END to view the next Subsystem Definition panel.

```
DISPLAY ------------------  SUBSYSTEM DEFINITION  --------------------------
COMMAND ===>
CURRENT ENV: BST         SYSTEM: FINANCE
NEXT    ENV: QAPROD
SYSTEM TITLE: FINANCIAL APPLICATIONS
SUBSYSTEM:       ACCTPAY
TITLE:           ACCOUNTS PAYABLE
NEXT SUBSYSTEM:  ACCTPAY
UPDATED:         31MAY01 01:04 DA1DM47
```

5.7.5 Fields

The Subsystem Definition panel fields are described next. All fields are display-only.

Field	Description
Current Env	Name of the current environment.
System	Name of the system in which the subsystem is defined.
Next Env	Name of the next environment on the map.
System Title	Descriptive title for the system.
Subsystem	Name of the subsystem being processed.
Title	Descriptive title for the subsystem (1-50 characters).
Next subsystem	Name of the subsystem at the next map location. When you access this panel in create or update mode, you can change the subsystem name.
Updated	Displays the date, time, and user ID of the last user to update the subsystem definition.

5.8 Displaying Type Definitions

5.8.1 Overview

Unlike system and subsystem definitions, *types are specific to a particular stage within a particular system*. Therefore, type definitions are individually defined, one for each stage, during installation. (For more information on defining types during installation, see the *Installation Guide*.)

5.8.2 Type Display Panel

To display the type definitions for a particular system, select option **7** on the Display Options Menu. Endevor displays the Type Display panel, which allows you to identify the type whose definition you want to view. When you press ENTER, Endevor displays the appropriate Type Definition Panel.

Note: If you do not know the system or type name, leave the SYSTEM and/or TYPE fields blank, or enter a partial name, and press ENTER to view the System and/or Type Selection List.

```
------------------------------  TYPE DISPLAY  -------------------------------
 OPTION  ===>

    blank - Display type definition

 ENVIRONMENT ===> DEMO

 SYSTEM      ===>

 TYPE        ===>

 STAGE       ===> A        A - TEST      B - PROD
```

5.8.3 Fields

The Type Display fields are described next:

Field	Description
Option	Always blank for display.
Environment	Name of the environment under which the element type is defined (initially, the current environment). If the element type is in a different environment, enter the environment's name in this field.
System	Name of the system in which the element type is defined.

Field	Description
Type	Name of the element type you want.
Stage	ID of the stage in which the element type is defined.

5.8.4 Type Selection List

When you leave the TYPE field blank or supply a partial name on the Type Display panel, Endevor displays a Type Selection List showing the element types defined in the selected system. To select the types you want to view, type an **S** to the left of each type's name and press ENTER.

```
-------------------------  TYPE SELECTION LIST  ---------------  ROW 1 OF 11
 COMMAND ===>                                                  SCROLL ===> GE

 ENVIRONMENT: DEMO        SYSTEM: FINANCE     STAGE: Q
    TYPE         TYPE DESCRIPTION
   CLISTS     FINANCE PRODUCTION CLISTS
 s JCL        FINANCE PRODUCTION JCL
   COPYBOOK   FINANCE PRODUCTION COPYBOOKS
   MACRO      FINANCE PRODUCTION MACROS
   ASSEM      FINANCE PRODUCTION ASSEMBLER ASSEMBLE ONLY
   COBOBJ     FINANCE PRODUCTION COBOL COMPILE TO OBJECT
   COBLNK     FINANCE PRODUCTION COBOL COMPILE AND LINK
   ASMLNK     FINANCE PRODUCTION ASSEMBLER ASSEMBLE AND LINK
   COBXREF    FINANCE PRODUCTION COBOL COMP AND LNK W/MONITOR
   LINKCARD   FINANCE PRODUCTION LINK EDIT CARDS
   COPY       FINANCE PRODUCTION COPYBOOKS
 ****************************** BOTTOM OF DATA  ******************************
```

5.8.5 Fields

The Type Selection List panel fields are described next. All fields except the SELECTION field are display-only.

Field	Description
Environment	Name of the current environment.
System	Name of the system under which the element type is defined.
Stage	ID of the stage under which the element type is defined.
Selection (no title)	Used to select a type for display. Type an **S** in this column next to the type you want.
Type	Name of the type.
Type Description	Description of the type.

5.8.6 Type Definition Panel

After you specify a system and type, Endevor displays the appropriate Type Definition panel. When you have finished viewing the information, press ENTER.

Note: If you selected multiple type definitions for display, press END to view the next Type Definition panel.

```
DISPLAY ----------------------  TYPE DEFINITION  ------------------------------
 COMMAND ===>

 CURRENT ENV:  QA1        STAGE ID:  1   SYSTEM:  PDS        TYPE:  COBOL
 NEXT    ENV:  QA1        STAGE ID:  B   SYSTEM:  PDS        TYPE:  COBOL

 DESCRIPTION:       COBOL TYPE WITH PROCESSOR
 UPDATED:           03MAY02 09:59 BY MONJO06B
             -----------------  ELEMENT OPTIONS  -------------------
 FWD/REV/IMG DELTA: R  (F/R/I)  COMPRESS BASE/ENCRYPT NAME:     Y  (Y/N)
 DFLT PROC GRP:     COBOUT   REGRESSION PCT:     00    REGR SEV:     I (I/W/C/E)
 SOURCE LENGTH:     80       COMPARE FROM:       7     COMPARE TO:   72
 AUTO CONSOL:       Y        LANGUAGE:     COBOL       PV/LB LANG:   COBOL
 REMOVE/CONSOL AT LVL:   96  HFS RECFM:          (COMP/CR/CRLF/F/LF/NL/V)
 LVLS TO REMOVE/CONSOL:  50  WS HOME OPSYS:            WS FILE EXT:
              -------------  COMPONENT LIST OPTIONS  ----------------
 FWD/REV DELTA:     F  (F/R) AUTO CONSOL:     Y  (Y/N) CONSOL AT LVL:      96
                                                       LVLS TO CONSOL:     50
              --------------------   LIBRARIES  ---------------------
   BASE/IMAGE LIBRARY:     BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.BASE
   DELTA LIBRARY:          BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.DLTA
   INCLUDE LIBRARY:        BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.INCL
   SOURCE O/P LIBRARY:     BST.&C1EN.&C1ST1..&C1SY..&C1TY..PERM.OUTP
     EXPAND INCLUDES:      N  (Y/N)
```

5.8.7 Fields

The Type Definition panel fields are described next:

5.8.7.1 Identification Fields

The first four fields on the Type Definition panel display the current location and type name. These fields are display-only.

Field	Description
Current Env	Name of the current environment.
Stage ID	Name of the current stage.
System	Name of the current system.
Type	Name of the type.

The next four fields indicate the next location on the map, and the type name at that location. If you have accessed this panel to create or update a type definition, you can change the value in the TYPE field. Otherwise these fields are display-only.

Field	Description
Next Env	Name of the environment at the next map location.
Stage ID	Name of the stage at the next map location.
System	Name of the system at the next map location.
Type	Name of the type at the next map location. You can change the type name when you access this panel in create or update mode.

5.8.7.2 Description Field

The DESCRIPTION field displays a 1- to 50-character description of the type.

5.8.7.3 Updated Field

Displays the date, time, and user ID of the last user to update the type definition.

Element Options Fields

Field	Description
Fwd/rev delta	Specifies delta storage format for elements of this type. Acceptable values are: ■ **R**--Default. Reverse delta format. ■ **F**--Forward delta format. ■ **I**--Indexed.
Compress base/ encrypt name	Indicates whether to encrypt and compress the base form of elements stored in reverse delta format. Acceptable values are: ■ **N**--Default. Do not compress base and encrypt name. ■ **Y**--Compress base and encrypt name.
Dflt Proc Grp	Identifies the processor group for this type.
Regression pct	Maximum acceptable regression percent for elements of this type (2 digits).

Field	Description
Regr sev	Regression severity. Determines severity of the error message issued when Endevor detects regression. Acceptable values are: ■ **I**--Informational message. ■ **W**--Warning message. ■ **C**--Default. Critical message. ■ **E**--Fatal message.
Source Length	Logical record length in source statements. The maximum allowable value is 32,000. For variable-length records, this length does not include the four-byte record header.
Compare From	Position within each statement at which Endevor begins comparing to identify changed statements (5 digits in the range 0-32,000). The default is 1.
Compare To	Position within each statement at which Endevor stops comparing to identify changed statements (5 digits in the range 0-32,000). The default is 72, and should be set to 80 for type Process, if you plan to use in-stream data in processors.
Auto Consol	Indicates whether Endevor is to consolidate change levels automatically. Acceptable values are: ■ **Y**--Consolidate automatically. When you create the 99th change level for an element, Endevor consolidates levels 1-50 into a single level, changing level 99 to level 50. ■ **N**--Default. Do not consolidate automatically. If the value of this field is **N**, LVLS TO CONSOL must be 0.
Consol at Lvl	Specifies the level number at which Endevor consolidates change levels. The default is 99. For example, if the value in this field is 70, Endevor consolidates levels when change level 70 is reached.

Field	Description
Lvls to Consol	Indicates the number of deltas to consolidate when the number of levels reaches the figure in the CONSOL AT LVL field. The default is 50. For example, if the value in this field is 30, and the value in the CONSOL AT LVL field is 70, at level 70 Endevor consolidates the oldest 30 deltas into a single consolidation level (level 1). This value must be zero if AUTO CONSOL = N, and cannot be greater than the value in the CONSOL AT LVL field. When moving or transferring with history, Endevor consolidates a number of levels equal to: ■ The number in this field. ■ The number of levels needed to reach the value in the CONSOL AT LVL field.
HFS RECFM	Indicates the record delimeter for USS/HFS files. If no value is specified for an HFS file, the default value of NL is used. Record delimeters and their HFS delimeter types are as follows: ■ COMP--Variable length records compressed by Endevor ■ CR --Carriage return (ASCII and EBCDIC "CR" is hex '0D) ■ CRLF--EBCDIC carriage return/line feed (hex '0D25') ■ F --Fixed length ■ LF --EBCDIC line feed (hex '25') ■ NL --EBCDIC new line character. This is the delimeter used by the editor, OEDIT and OBROWSE. The default value. ■ V --Variable. The first two bytes of the record are the RDW (record descriptor word) and it contains the length of the record including the RDW.

Field	Description
Language	Defines the source language for the type (1-8 characters). **Note:** If you specify LINKEDIT in this field, you cannot use NAME or ALIAS statements in the link step of processors associated with this type.
PV/LB Lang	Applicable for installations using a CA-Panvalet or CA-Librarian library to store elements. The 1- to 8-character CA-Panvalet or CA-Librarian source language for the type. See the section Acceptable PV/LB Language Values for a list of the languages you can use with CA-Panvalet and CA-Librarian. If you plan to use in-stream data in processors and the current type is Process, specify either DATA (for CA-Panvalet) or DAT (for CA-Librarian) in this field.
Home Opsys	Indicates the platform on which elements of this type are created. Acceptable values are: ■ **M**--Elements of this type are created on the mainframe. ■ **W**--Elements of this type are created on workstations.
WS EXT	Indicates the 1- to 3-character file extension to be used on workstation or LAN platforms for elements of this type. This field appears only if Endevor Link is installed.

5.8.7.4 Component List Options Fields

Field	Description
Fwd/Rev Delta	Specifies delta storage format for component list information. Both the component list base and delta members will be stored in the delta library defined on the type definition. Acceptable values are: ■ **R**--Reverse delta format. ■ **F**--Default. Forward delta format.
Auto Consol	The default for component lists is **Y** (consolidate automatically).
Consol at Lvl	See the description of this field in Element Options Fields.

Field	Description
Lvls to Consol	See the description of this field in Element Options Fields.

5.8.7.5 Library Fields

Field	Description
Base/Image Library	Name of the base library for the type. Can be PDS or PDS/E, CA-Panvalet, CA-Librarian, or Endevor LIB.
Delta library	Name of the delta library for the type. Can be PDS or PDS/E, CA-Panvalet, CA-Librarian, or Endevor LIB.
Include Library	Name of the PDS or PDS/E, CA-Panvalet, or CA-Librarian INCLUDE library for the type. If specified, members can be included and expanded from this library.
Source O/P Library	Data set name of source output library.
Expand Includes	Indicates whether INCLUDE statements are expanded when the element is written to the source output library. Acceptable values are: ■ **Y**--Expand INCLUDE statements. ■ **N**--Do not expand INCLUDE statements.

5.8.8 Acceptable PV/LB Language Values

If you are using CA-Panvalet or CA-Librarian to store elements, you must indicate the appropriate source language in the PV/LB LANG field on the Type Definition panel.

You can use one of the following source language values for CA-Panvalet:

ANSCOBOL	DATA	PL/1
ALC	EZPLUS	PL/I
AUTOCODE	FORTRAN	RPG
BAL	JCL	USER780
COBOL	OBJECT	USER180
COBOL-72	OTHER	

You can use one of the following source language values for CA-Librarian:

ASM	FRH	PLI
COB	GIS	RPG
DAT	GOF	TXT
DAT	JCL	VSB
FRG	PLF	

5.9 Displaying Processor Group Definitions

5.9.1 Overview

A processor group consists of:

- One generate, one delete, and one move processor, or any combination thereof. (For example, a non-executable element may require only a move processor in its processor group. You cannot, however, have multiple processors of the same type in a processor group.)
- The default symbolic overrides for the processors' JCL.

For more information about processor groups, see the *Extended Processors Guide*.

5.9.2 Processor Group Display Panel

To view the definition for a processor group, select option **8** on the Display Options Menu. Endevor displays the Processor Group Display panel, which allows you to identify the processor group whose definition you want to display. You need to supply the following information:

- The environment, system, type, and stage for which the processor group is defined.
- The name of the processor group.

If you do not know the system, type, or processor group name, you can leave the SYSTEM, TYPE, or GROUP fields blank and press ENTER to view the System, Type, and/or Processor Group Selection List.

```
-----------------------  PROCESSOR GROUP DISPLAY  --------------------------
OPTION  ===>

   blank - Display processor group definition

ENVIRONMENT ===> DEMO

SYSTEM      ===> FINANCE

TYPE        ===> COBOL

STAGE       ===> Q        Q - QA      P - PROD

GROUP       ===>
```

5.9.3 Fields

The Processor Group Display fields are described next:

Field	Description
Environment	Name of the environment under which the processor group is defined (initially, the current environment). If the processor group is in a different environment, enter the environment's name in this field.
System	Name of the system in which this processor group resides.
Type	Name of the type to which the processor group applies.
Stage	ID of the stage in which this processor group resides. This must be one of the stage IDs listed to the right.
Group	Name of the processor group you wish to display.

5.9.4 Processor Group Selection List

When you leave the GROUP field blank or supply a partial name on the Processor Group Display panel, Endevor displays the Processor Group Selection List showing the processors defined in the selected system, stage, and type. To select the processors you want to view, type an **S** to the left of each processor's name and press ENTER

```
------------------  PROCESSOR GROUP SELECTION LIST  ----------  ROW 1 OF 10
COMMAND ===>                                                 SCROLL ===> PAGE

CURRENT ENV: BST        STAGE ID: P     SYSTEM: FINANCE    TYPE: COBOL
NEXT    ENV: QAPROD     STAGE ID: 1     SYSTEM: FINPROD    TYPE: COBOL

 PROCESSOR
   GROUP       PROCESSOR GROUP DESCRIPTION
  COBDBL    DB2 COBOL COMPILE AND LINK EDIT  LISTING IS STORED
  COBNBL    COBOL COMPILE AND LINK, LISTING IS STORED
  COBNBL01  COBOL COMPILE AND LINK, LISTING IS PRINTED
  COBNBO    COBOL COMPILE ONLY,  LISTING IS PRINTED
*************************** BOTTOM OF DATA  ********************************
```

5.9.5 Fields

The Process Group Selection List panel fields are described next. All fields except the SELECTION field are display-only.

Field	Description
Current Env	Name of the current environment.
Stage ID	Name of the current stage.

Field	Description
System	Name of the current system.
Type	Name of the type to which the processor group(s) apply.
Next Env	Name of the next environment in the map.
Stage ID	Name of the first map stage in the next environment.
System	Name of the system in the next environment.
Type	Name of the element type in the next environment to which the processor group(s) apply.
Selection (no title)	Field used to select a processor group for display. Type an **S** in this column, next to the processor group you want to display.
Processor Group	Name of the processor group.
Processor Group Description	Description of the processor group.

5.9.6 Processor Group Definition Panel

After you specify a system, type, stage, and processor group, Endevor displays the appropriate Processor Group Definition panel. The fields that appear on this panel depend on the processor group's type. The following panel displays processor groups for all types, except type Process.

```
DISPLAY  ----------------  PROCESSOR GROUP DEFINITION  ----------------------
COMMAND ===>

CURRENT ENV: BST       STAGE ID: P     SYSTEM: FINANCE     TYPE: COBPROG
NEXT    ENV: QAPROD    STAGE ID: 1     SYSTEM: FINANCE     TYPE: COBPROG

PROCESSOR GROUP:   NEWGRP                   PROCESSOR O/P TYPE:
DESCRIPTION:       COBOL COMPILE AND LINK, LISTING IS STORED
NEXT PRCSGROUP:    NEWGRP

UPDATED:             31MAY01 01:04 BY DA1DM47
----------------------  OUTPUT MANAGEMENT INFORMATION  -------------------

PROCESSOR TO USE FOR MOVE     ACTION:     M (M/G)
PROCESSOR TO USE FOR TRANSFER ACTION:     G (M/G)

       $ - Browse Symbolics                   L - List Processor

                                     FOREGROUND EXECUTION
   GENERATE PROCESSOR:     GCOBNBL      :     Y (Y/N)
   DELETE PROCESSOR:       DLODNNN      :     Y (Y/N)
   MOVE PROCESSOR:         MLODNNL      :     Y (Y/N)
```

The Processor Group Definition panel for type Process does not provide information about the next environment, the next processor group, or selection options for the OUTPUT MANAGEMENT INFORMATION fields, because the system definition

only allows for two processor load libraries to be defined. For more information about defining processor groups, see the *Extended Processors Guide*.

5.9.7 Fields

The Processor Group Definition panel fields are described next:

5.9.7.1 Processor Group Identification Fields

The first six fields on this panel identify the current environment. All fields are display-only.

Field	Description
Current Env	Name of the current environment.
Stage ID	Name of the stage in which the processor groups on the list are defined.
System	Name of the system in which the processor groups on the list are defined.
Type	Name of the type to which the processor group applies.
Next Env	Name of the environment at the next map location.
Stage ID	Name of the stage in which the processor groups on the list are defined at the next map location.
System	Name of the system in which the processor groups on the list are defined at the next map location.
Type	Name of the type to which the processor group applies at the next map location.
Processor group	Name of the processor group.
Processor O/P type	The type of output produced by the processor group. See the section, “Element Registration” in Chapter 1 for more information on this field.
Description	Description of the processor group.
Next Prcsgroup	Name of the processor group at the next map location. When you access this panel in create or update mode, you can change the type name.
Updated	Displays the date, time, and user ID of the last user to update the processor group definition.

5.9.7.2 Output Management Information Fields

There are four groups of OUTPUT MANAGEMENT INFORMATION fields: Move/Transfer processor selection fields, option fields, processor identification fields, and foreground execution fields.

Field	Description
Processor to Use for Move Action	Indicates whether Endevor will execute the move or generate processor when the user initiates a MOVE action. Values are: ■ **M**--execute the move processor. ■ **G**--execute the generate processor. **Note:** A move processor copies the inventory from the source to the target location. If you want to recompile the inventory as part of the MOVE action, specify **G** in this field.
Processor to Use for Transfer Action	Indicates whether Endevor will execute the generate or move processor when the user initiates a TRANSFER action. Values are: ■ **M**--execute the move processor. ■ **G**--execute the generate processor. **Note:** The TRANSFER action normally executes a generate processor at the target location. If you want to transfer component lists as part of the TRANSFER action, specify **M** in this field.
Option Field (untitled)	If the element type is *not* Process, and the processor group is *not* named *NOPROC*, then you can type either of the following options to the left of a processor's name to view more information about that processor. The options are: ■ **S**--view the processor's default symbolic overrides. ■ **L**--view the processor's JCL.
Generate Processor	The name of the generate processor assigned to the group. If no generate processor is defined, *NOPROC* appears in this field.
Delete Processor	The name of the delete processor assigned to the group. If no delete processor is defined, *NOPROC* appears in this field.
Move Processor	The name of the move processor assigned to the group. If no move processor is defined, *NOPROC* appears in this field.

Field	Description
Foreground Execution	Indicates whether the generate, delete, or move processors identified in the respective PROCESSOR fields can be executed in foreground. The acceptable values are: ■ **Y**--The processor can be executed in foreground. ■ **N**--The processor cannot be executed in foreground.

5.9.8 Processor Group Symbolics Panel

Endevor supports user-defined symbolics in processors. The symbolics defined for each processor in a processor group appear on the Processor Group Symbolics panel. You can use this panel to view and/or override user-defined symbolics for this processor group.

For more information on how Endevor handles symbolics, see the *Extended Processors Guide*

To access a Processor Group Symbolics panel from the Processor Group Definition panel, type an **S** in the SELECTION field next to the processor's name and press ENTER. Endevor displays the appropriate Processor Group Symbolics panel.

```
DISPLAY ----------------  PROCESSOR GROUP SYMBOLICS  ------  ROW 1 TO 12 OF 25
COMMAND ===>                                                 SCROLL ===> PAGE
CURRENT ENV:  DEMO       STAGE ID:  Q   SYSTEM:  FINANCE    TYPE:  COBOL
PROCESSOR GROUP: COBNCL
DESCRIPTION:     CICS PRECOMPILE, COMPILE AND LINK, LISTING STORED
PROCESSOR:       GCOBNCL
LOAD LIBRARY:    NDVR.DEMO.STG1.PRCSLOAD
DEFAULT  Values are indicated by "--"
OVERRIDE Values are indicated by "O"
SYMBOLIC --/O VALUE
CICSLIB1  --  SYS5.CICS212.LOADLIB1
CICSLIB2  --  SYS5.CICS212.LOADLIB2
CICSLOAD  --  SYS5.CICS212.LOADLIB
COBCOMP   --  SYS5.COB24.VSCOLIB
COBLIB    --  SYS5.COB24.VSCLLIB
CSYSLIB1  --  &PROJECT..&GROUP.&STG1..COPYLIB
CSYSLIB2  --  &PROJECT..&GROUP.&STG2..COPYLIB
CSYSLIB3  --  &PROJECT..&GROUP.&STG3..COPYLIB
EXPINC    --  Y
GROUP     --  DEMO
LISTLIB   --  &PROJECT..&GROUP.&STG1..LISTLIB
LOADLIB   --  &PROJECT..&GROUP.&STG1..LOADLIB
```

Note: If Endevor cannot display all the symbolics on one panel, press the DOWN and UP PF keys to scroll through the list. Endevor leaves the processor information at the top of the screen while you scroll through the symbolics.

5.9.9 Fields

The Processor Group Symbolics panel fields are described next:

5.9.9.1 Identification Fields

The first eight fields on this panel identify the processor.

Field	Description
Current Env	Name of the current environment.
Stage ID	Name of the stage in which the processor groups on the list are defined.
System	Name of the system in which the processor groups on the list are defined.
Type	Name of the type to which the processor group applies.
Processor group	Name of the processor group.
Description	Description of the processor group.
Processor	Name of the processor.
Load Library	Name of the load library in which the processor resides.

5.9.9.2 Symbolic Identification Fields

The three remaining fields on this panel provide information about the symbolics defined for this processor.

Field	Description
Symbolic	Name of the symbolic in the PROC statement of the processor.
-- (dash)/O	Indicates the status of the value of the symbolic. ■ **-- (dash)**--Default value for the symbolic. ■ **O**--Override value for the symbolic. Although these are the default character values distributed with Endevor, they can be changed by the site administrator. See the section "Customizable Dialog Fields" in the *Installation Guide*.
Value	Value to be assigned to the symbolic during the next run of the processor.

5.9.10 Processor JCL Panel

To view the JCL for the processors in a processor group from a Processor Group Definition panel, type **L** (List) in the SELECTION field next to each processor's name and press ENTER. Endevor displays the appropriate Processor JCL panels.

Note: If you selected multiple processors to display, press END to view the next Processor Display panel.

```
DISPLAY ---------------------  PROCESSOR DISPLAY  --------  ROW 1 TO 17 OF 154
COMMAND ===>                                               SCROLL ===> PAGE
---------------------------  PROCESSOR FOOTPRINT  ------------------------
ENVIRONMENT  SYSTEM   SUBSYS   ELEMENT    TYPE     STG  VV.LL   DATE   TIME
DEMO         ADMIN    STANDARD GCOBNCL    PROCESS   1   01.01  18FEB01 18:59
LOAD LIBRARY: NDVR.DEMO.STG1.PRCSLOAD
--------------------------------------------------------------------------------
****************************** TOP OF DATA ******************************
//*********************************************************************
//**                                                                 **
//**  PERFORMS A CICS PRECOMPILE, COBOL COMPILE AND LINK EDIT        **
//**                                                                 **
//*********************************************************************
//*
//GCOBNCL  PROC  LISTLIB='&PROJECT..&GROUP.&STG1..LISTLIB',
//               LOADLIB='&PROJECT..&GROUP.&STG1..LOADLIB',
//               CICSLOAD='SYS5.CICS212.LOADLIB',
//               CICSLIB1='SYS5.CICS212.LOADLIB1',
//               CICSLIB2='SYS5.CICS212.LOADLIB2',
//               COBLIB='SYS5.COB24.VSCLLIB',
//               COBCOMP='SYS5.COB24.VSCOLIB',
//               PROJECT='NDVR',
//               GROUP='DEMO',
//               STG1='&C1STAGE.',     CURRENT STAGE
```

Note: Press the DOWN and UP PF keys to scroll through the JCL. Endevor leaves the processor footprint at the top of the screen while you scroll.

5.9.11 Fields

Processor Display fields are described next:

5.9.11.1 Processor Footprint Fields

The following list describes the panel fields. All fields are display-only.

Field	Description
Environment	Name of the current environment.
System	Name of the system under which the processor is defined.
Subsystem	Name of the subsystem under which the processor is defined.

Field	Description
Element	Name of the processor.
Type	Name of the type to which the processor applies.
STG	ID of the stage under which the processor is defined.
VV.LL	Number that identifies the processor's level (in *vv.ll* format).
Date	Level date (in *ddmmmyy* format).
Time	Level time (in *hh:mm* format).
Load Library	Name of the load library in which the processor resides.

5.10 Displaying Approver Group Definitions

5.10.1 Approver Group Display Panel

Approver groups are used during package processing. For details, see the *Packages Guide*.

To review the approver groups currently defined in the specified environment, select option **9** on the Display Options Menu. Endevor displays the Approver Group Display panel, which allows you to identify the approver group whose definition you want to display and the environment in which that approver group is defined. When you press ENTER, Endevor displays the appropriate Approver Group Definition panel.

Note: If you do not know the approver group's name, leave the APPROVER GROUP field blank, or enter a partial name, and press ENTER to view the Approver Group Selection List panel.

```
----------------------  APPROVER GROUP DISPLAY  ----------------------------
OPTION  ===>

   blank - Display Approver Group definition

ENVIRONMENT     ===> DEMO

APPROVER GROUP  ===>
```

5.10.2 Fields

The Approver Group Display fields are described next:

Field	Description
Option	Always blank for display.
Environment	Name of the environment under which the approver group is defined (initially, the current environment). If the approver group is in a different environment, enter the environment's name in this field.
Approver Group	Name of the approver group you want to display. Leave this field blank to request an Approver Group Selection List showing all approver groups. Use a name mask to restrict the list to those approver groups whose names begin with the characters specified.

5.10.3 Approver Group Selection List

When you leave the APPROVER GROUP field blank or supply a partial group name on the Approver Group Display panel, Endevor displays an Approver Group Selection List showing the approver groups defined to the current environment. To select the groups you want to view, type an **S** to the left of each group's name and press ENTER.

```
---------------------  APPROVER GROUP SELECTION LIST  ----------  ROW 1 OF 6
COMMAND ===>                                                 SCROLL ===> CSR

ENVIRONMENT: DEMO

   APPROVER GROUP    APPROVER GROUP TITLE
   ACCOUNTING SYS    ALL ACCOUNTING SYSTEMS: G/L, A/P, A/R
   CHANGE CNTRL BRD  CHANGE CONTROL BOARD
 s DOCGRP            PUBLICATIONS/MARKETING
   EDP AUDIT         INTERNAL EDP AUDIT
   EMERGENCY FIX     SECOND AND THIRD SHIFT SUPERVISORS
   MANUFACTURE SYS   ALL MANUFACTURING SYSTEMS: INVENTORY, SHOP
   PERSONNEL SYS     ALL PERSONNEL SYSTEMS: BENEFITS, PAYROLL
****************************** BOTTOM OF DATA  ******************************
```

5.10.4 Fields

The Approver Group Selection List panel fields are described next. All fields except the SELECTION field are display-only.

Field	Description
Environment	This is the name of the current environment.
Selection (no title)	Field used to select an approver group for display. Type an **S** in this column next to the approver group you want to display.
Approver Group	This is the name of the approver group.
Approver Group Title	This is a descriptive title for the approver group.

5.10.5 Approver Group Definition Panel

After you specify an approver group name, Endevor displays the appropriate Approver Group Definition panel. When you have finished viewing the information, press ENTER. Endevor displays the previous panel--either the Approver Group Display panel or the Approver Group Selection List.

If you selected multiple approver groups for display, press END to view the next Approver Group Definition panel.

```
DISPLAY --------------  APPROVER GROUP DEFINITION  -------------------------
COMMAND ===>

    APPROVER GROUP:  DOCGRP                      ENVIRONMENT:  DEMO
    TITLE:           PUBLICATIONS/MARKETING
    QUORUM SIZE:     02

    UPDATED:         31MAY01 01:04 BY DA1DM47

           APPROVER      REQ'D (Y/N)      APPROVER      REQ'D (Y/N)
      ===> ZSXLGB1   ===> Y          ===> ZSXPGM1   ===> N
      ===> ZSXSXV1   ===> N          ===> ZSXREL1   ===> N
      ===> ZSXPTB1   ===> N          ===>           ===>
      ===>           ===>            ===>           ===>
      ===>           ===>            ===>           ===>
      ===>           ===>            ===>           ===>
      ===>           ===>            ===>           ===>
      ===>           ===>            ===>           ===>
```

5.10.6 Fields

The Approver Group Definition panel fields are described next. All fields are display-only.

Field	Description
Approver Group	The name of the approver group.
Environment	The name of the current environment.
Title	The descriptive title for the approver group.
Quorum Size	The minimum number of people whose approval is required in order to execute the package.
Updated	Displays the date, time, and user ID of the last user to update the approver group definition.
Approver	A list of the TSO user IDs of the members of the specified approver group.
Req'd (Y/N)	Indicates whether this approver is required to approve a package: **Y** (yes) or **N** (no). A required approver must approve a package, regardless of the quorum requirement. That is, if you designated a quorum of 1 and list two required approvers, both approvers must grant approval before the package can be executed.

5.11 Displaying Approver Group Relation Definitions

5.11.1 Overview

An approver group relationship refers to the relationship established between an inventory area (that is, a collection of Endevor elements identified by--either explicitly or using a name mask--a system, subsystem, element type, and/or stage) and specific approver groups. Approver group relationships are determined by the Endevor administrator. See the section Name Masking for more information on specifying a mask character.

Note: Once an approver group has been "related" to a specific inventory area, all processing for that inventory area must then be performed by *package processing*. The package is subject to approval by the users defined in all approver groups associated with inventory areas affected by the actions contained in that package. For details, see the *Packages Guide*.

5.11.2 Approver Group Relation Display Panel

To view the Approver Group Relation definitions in an environment, select option **A** from the Display Options Menu. Endevor displays the Approver Group Relation Display panel, which allows you to identify the inventory area for which you want to display related approver groups. When you press ENTER, Endevor displays the appropriate Approver Group Relationship panel. If you do not know the name of the inventory area you want to see, leave all or selected fields blank and press ENTER.

Note: You cannot use a name mask when entering information on the Approver Group Relation display. An asterisk (*****), normally used to indicate a name mask, is an actual data value in this context. See the section Name Masking for more information.

```
-----------------  APPROVER GROUP RELATION DISPLAY  ------------------------
OPTION  ===>

   blank - Display relationships between inventory areas and Approver Groups

ENVIRONMENT     ===> DEMO

SYSTEM          ===> ACCOUNTG     (* or full system name)

SUBSYSTEM       ===> *            (* or full subsystem name)

TYPE            ===> *            (* or full type name)

STAGE NUMBER    ===> 2            (*, 1 or 2)

APPROVER TYPE   ===> STANDARD     (EMERGENCY/STANDARD)

Note: Leaving the SYSTEM, SUBSYSTEM, TYPE or STAGE NUMBER field blank
      will cause ENDEVOR to display a list. Entering an asterisk (*)
      will only return a match if the inventory rule was built with
      an asterisk (*) as the name.
```

5.11.3 Fields

The Approver Group Relation Display fields are described next:

Field	Description
Environment	Name of the environment under which the approver group relationship is defined (initially, the current environment). If the approver group relationship is in a different environment, enter the environment's name in this field.
System	Name of the system to which this approver group relationship applies. Enter the full name of the system, an asterisk, or leave blank to request an Approver Group Relationship List showing all systems.
Subsystem	Name of the subsystem to which this approver group relationship applies. Enter the full name of the subsystem, an asterisk, or leave blank to request an Approver Group Relationship List showing all subsystems.
Type	The element type to which this approver group relationship applies. Enter the full type name, an asterisk, or leave blank to request an Approver Group Relationship List showing all types.
Stage Number	The stage number to which this approver group relationship applies. Fill in the appropriate number (1 or 2), an asterisk, or leave blank to request an Approver Group Relationship List for all stages.
Approver Type	The approver type designated for this approver group: standard or emergency. An approver group designated as standard can be used to approve standard packages only. Similarly, an approver group designated as emergency can be used to approve emergency packages only.

5.11.4 Associating an Approver Group With an Entire Inventory Area

You can enter one of three values in the SYSTEM, SUBSYSTEM, TYPE, and APPROVER TYPE fields:

- A full name
- Blanks
- An asterisk (*****)

The first two values are the same as for every Display panel discussed in this chapter, but the asterisk carries a different meaning for this panel. An asterisk is an actual data value; for example, if you enter an asterisk as the subsystem name, Endevor records (and displays) that value as the actual name. The Approver Group Relationship List then shows only those relationships with "*" as the value for the SUBSYSTEM field.

The presence of an asterisk in any field, however, signifies that the approver group relationship is "independent" of that particular part of the element inventory area. For example, if an approver group has been related to an inventory area with a system name of ABC, an asterisk as the subsystem, an asterisk as the type, and a stage number of 2, then the approver group relationship applies to all elements (that is, approval is required for all elements) in system ABC and stage 2--regardless of subsystem and type.

5.11.5 Approver Group Relationship List

When you leave the SYSTEM, SUBSYSTEM, or TYPE field blank on the Approver Group Relation Display panel, Endevor displays an Approver Group Relationship List showing the approver groups defined in the selected system. To select the groups you want to view, type an **S** to the left of each group's name and press ENTER.

```
------------------  APPROVER GROUP RELATIONSHIP LIST  ---------  ROW 1 OF 10
COMMAND ===>                                                  SCROLL ===> CSR
ENVIRONMENT:    DEMO
APPROVER TYPE:  STANDARD
   SYSTEM     SUBSYSTEM  TYPE       STAGE    APPROVER GROUP
   *          OSB        *            2      ACCOUNTING SYS
   *          PAY        *            2      ACCOUNTING SYS
   ACCOUNTG   *          *            2      ACCOUNTING SYS
 S ACCOUNTG   *          *            2      DOCGRP
   ACCOUNTG   *          *            2      EDP AUDIT
   MANUFACT   *          *            2      MANUFACTURE SYS
   MANUFACT   *          *            2      EDP AUDIT
   MANUFACT   *          *            2      CHANGE CNTRL BRD
   PERSONEL   *          *            2      CHANGE CNTRL BRD
   PERSONEL   *          *            2      EDP AUDIT
   PERSONEL   *          *            2      PERSONNEL SYS
****************************** BOTTOM OF DATA  ******************************
```

5.11.6 Fields

The Approver Group Relationship List fields are described next. All fields but the SELECTION field are display-only.

Field	Description
Environment	Name of the environment under which the approver group relationship is defined.
Approver Type	Whether this approver group type is standard or emergency.

Field	Description
Selection (no title)	Field used to select an approver group relationship for display. Type an **S** in this column next to the approver group relationship you want to display.
System	Name of the system to which the approver group is related.
Subsystem	Name of the subsystem to which the approver group is related.
Type	Name of the element type to which the approver group is related.
Stage	Stage number to which the approver group is related.
Approver Group	Name of the approver group related to the inventory area.

To return to the Approver Group Display panel, press END.

5.11.7 Approver Group Relationship Panel

After you specify the approver group relationship you want to view, Endevor displays the Approver Group Relationship panel. When you have finished viewing the information, press ENTER.

```
DISPLAY --------------------  APPROVER GROUP RELATIONSHIP  -----------------
COMMAND ===>
ENVIRONMENT:           BST
APPROVER GROUP:        FARMETTES
APPROVER TYPE:         STANDARD
UPDATED:               31MAY01 01:04 BY DA1DM47
INVENTORY AREA TO WHICH APPROVER GROUP IS RELATED:
   SYSTEM:             NDVR250
   SUBSYSTEM:          NOT4SALE
   TYPE:               ISPPE
   STAGE NUMBER:       *
```

5.11.8 Fields

The Approver Group Relationship panel fields are described next. All fields but the SELECTION field are display-only.

Field	Description
Environment	Name of the current environment.
Approver Group	Name of the approver group related to the inventory area.

Field	Description
Approver Type	Type of approver group you specified: standard or emergency.
Updated	Displays the date, time, and user ID of the last user to update the relationship.
System	Name of the system in the inventory area to which the approver group is related.
Subsystem	Name of the subsystem in the inventory area to which the approver group is related.
Type	Name of the element type in the inventory area to which the approver group is related.
Stage Number	Stage number in the inventory area to which the approver group is related.

5.12 Displaying Environment Information

5.12.1 Overview

To display the environment definitions defined during installation, select option **E** on the Display Options Menu and press ENTER. Endevor displays the Environment Information panel. The values displayed on this panel are obtained from your current Defaults Table. (For more information on the definition process, see the *Installation Guide*.)

5.12.2 Environment Information Panel

The Environment Information panel is shown next.

```
------------------------- Environment Information -------------------------
Command ===>

  Current Environment,..... INT
  Title.................... Integration Environment
  Next Environment......... QAS

  User Security Table.......
  Resource Security Table...
  Journal.................. (NONE)
  SMF Activity............. Y
  SMF Security............. Y
  MVS/DB Bridge............ N
```

To return to the Display Options Menu, press END.

5.12.3 Fields

The Environment Information panel fields are described next. All fields except for CURRENT ENVIRONMENT are display-only.

Field	Description
Current Environment	Name of the current environment. To display the details for another environment, enter the environment's name in this field and press ENTER.
Title	Descriptive title for the current environment.
Next Environment	Name of the next environment on the map.
User Security Table	Name of the User Security Table currently in use (applicable for native security only).
Resource Security Table	Name of the Resource Security Table currently in use (applicable for native security only).

Field	Description
Journal	Name of the journal file used by Endevor's Point in Time Recovery facility.
SMF activity	Indicates whether the SMF facility is active for this environment: **Y** (yes) or **N** (no).
SMF security	Indicates whether SMF security is active for this environment: **Y** (yes) or **N** (no).
MVS/DB bridge	Indicates whether the Endevor/DB-MVS Bridge is active for this environment: **Y** (yes) or **N** (no).

5.13 Site-Defined Symbolics

Site-defined symbolics are user-defined symbolic values that you reference within dataset name specifications for base, delta, source output, include libraries, and processors (that is, you can use them wherever you can use Endevor symbolics). At execution time, any site-defined symbolics referenced by a processor are stored with the processor symbolics in the component data. If a site-level symbolic is also specified as a processor symbolic, the processor symbolic (and processor symbolic override) take precedence.

When Endevor is initialized, the site-defined symbolics are placed into memory. When Endevor is terminated, the site symbolic storage is released. If more than one Endevor task is executing, each task has its own discrete site symbolic storage.

To implement the use of site-defined symbolics, you must define the symbolic and its data value in a table that is assembled and linked into an authorized load library. Once this is done, you need to update the SYMBOLTBL parameter in the C1DEFLTS table with the name of the site-defined symbolics table. These actions are described below.

5.13.1 Defining Site Symbolics

Use the following format to define a symbolic and its data value in the site-defined symbolics table:

```
$ESYMBOL SYMNAME=#symbolname,SYMDATA=symbolvalue
```

Item	Description
symbolname	The symbol name must begin with the # character and is 1 to 11 characters in length. The # indicates that the symbol is defined in the site-defined symbolics table.
symbolvalue	The data value associated with the site symbolic is 1 to 70 characters in length, with no restrictions on the content of the data. If you do not specify a data value for a symbolic, Endevor treats it as a null variable.

Use the JCL member contained in the element BC1JSYMT to create the site-defined symbolics table.

5.13.2 Updating C1DEFLTS

After creating the symbolics table, update C1DEFLTS to reflect the table name. Use the SYMBOLTBL= parameter to define the table name as shown below:

```
            SPFEDIT=SPFEDIT,                                        X
            SYMBOLTBL=ESYMBOLS,                                     X
            SYSIEWL=SYSIEWLP,                                       X
            MIXEDFMT=(DESCRIPTION,COMMENT),                         X
            UIDLOC=(1,7),                                           X
            VIOUNIT=VIO,                                            X
            WRKUNIT=SYSDA,                                          X
            RACFUID=NDVUSER,                                        X
            RACFGRP=NDVALT0,                                        X
            PKGCSEC=N,                                              X
            PKGCVAL=O,                                              X
            PKGSEC=ESI,                                             X
            PRBLKSZ=00000,                                          X
            PRLNKSZ=(896K,96K),                                     X
            PRLSTSZ=10,                                             X
            MODHLI=BST
      C1DEFLTS TYPE=ENVRNMNT,                                       X
            ENVNAME=D40,                                            X
            ENVTITL='Development Rel 4.0',                          X
```

The Site Information from C1DEFLTS panel displays the parameter value in the SYMBOLICS Table field highlighted below:

```
---------------------- Site Information from C1DEFLTS -------------------------
Command ===>

 Customer Name..... Computer Associates Inc., Endevor Development
 ------------------ Function Controls --------------------      - Options -
 Site ID........... 0          Access Table......               ASCM..... Y
 Release........... B4000C     SMF Record Number. 230           DB2...... Y
 Environments...... 4          Library System.... PV            EDITELM.. Y
 Userid Start...... 1          Library Program... LIBRARV       ELINK.... Y
 Userid Length..... 7          VIO Unit.......... VIO           ESSI..... N
 Batch ID.......... 1          Work Unit......... SYSDA         INFO..... N
 SPFEDIT QNAME..... SPFEDIT    Work Volser.......               LIBENV... Y
 SYSIEWL QNAME..... SYSIEWLP   Lines per Page.... 60            NETMAN... N
 Authorized Tables. IGNORE     MODHLI............ BST           PDM...... Y
 Gen in place/SO... N          Signout on fetch.. N             PROC..... Y
 CA-LSERV JRNL SBS.            ELINK XLTE TBL....
 PITR Journal Grp..            Mixed Format...... COMMENT DESCRIPTION
 SYMBOLICS Table... ESYMBOLS
                                                  (Press Enter for Next Panel)
```

Chapter 6. Action Processing

6.1 Endevor Actions: An Overview

6.1.1 About this Chapter

This chapter assumes that you know how to request actions in foreground, how to build request data sets for batch execution and as packages, and basic foreground and batch panel flow. For more information on packages, see the *Packages Guide*. The *SCL Reference Guide* contains syntax information for creating request data sets for batch execution using a text editor.

6.1.2 Overview

You manipulate elements within Endevor inventory areas by executing actions. You can execute actions from foreground panels, by creating request data sets to be submitted for batch execution, or by creating request data sets as packages, which require approval before being executed in either foreground or batch.

Some actions are available in both foreground and in batch, while others are available only in batch. Batch actions are also available when you build packages.

The following table summarizes Endevor actions and their availability.

This action...	Is available in...	And Does This
Add	Foreground / Batch	Puts a member under Endevor control from an external data set.
Archive	Batch	Writes the current version of an element to a sequential data set.
Copy	Batch	Copies an element from an archive data set to a data set external to Endevor.
Delete	Foreground / Batch	Erases base and delta forms of an element and removes related information from a master control file or component list.
Display	Foreground	Displays information about an element.
Generate	Foreground / Batch	Creates an executable form of an element.
List	Batch	Creates a list of elements or members that meet specific selection criteria.
Move	Foreground / Batch	Moves elements between stages, within or across environments.
Print	Foreground / Batch	Prints element or member information.

This action...	Is available in...	And Does This
Restore	Batch	Restores elements to Endevor from an archive data set.
Retrieve	Foreground / Batch	Copies elements from Endevor to an external data set.
Signin	Foreground / Batch	Removes the user signout associated with an element.
Transfer	Batch	Moves elements between locations that are not on the same map route.
Update	Foreground / Batch	Updates an element from an external database.

6.1.3 Duplicate Element Names

Endevor provides two options that enable you to allow or disallow duplicate element names. One option enables you to control the use of duplicate element names at the system and subsystem level. The other option enables you to control the use of duplicate element names at the Processor Group level.

For information on implementing one or both of these options, see the section Element Registration in Chapter 1.

6.2 Action Request Panel Fields

6.2.1 Overview

You specify actions on action request panels. This section contains an example of an action request panel, and descriptions of fields and options that appear frequently on these panels.

Use this section for reference. Options used only for a specific action are described in the section on that action later in this chapter.

6.2.2 Sample Action Request Panel

The request panel for the RETRIEVE action is shown below.

```
------------------------------ RETRIEVE ELEMENTS ------------------------------
OPTION  ===>
                              ELEMENT DISPLAY OPTIONS:
   blank - Element list          S - Summary   B - Browse    H - History
   R - Retrieve element          M - Master    C - Changes

FROM ENDEVOR:                         ACTION OPTIONS:
  ENVIRONMENT ===> DOC                   CCID             ===>
  SYSTEM      ===> FINANCE               EXPAND INCLUDES  ===> N (Y/N)
  SUBSYSTEM   ===> *                     SIGNOUT ELEMENT  ===> Y (Y/N)
  ELEMENT     ===>                       OVERRIDE SIGNOUT ===> N (Y/N)
  TYPE        ===> *                     REPLACE MEMBER   ===> N (Y/N)
  STAGE       ===>          1 - S1            B - S2
  COMMENT     ===>

TO ISPF LIBRARY:                      LIST OPTIONS:
   PROJECT ===> BST                      DISPLAY LIST      ===> N (Y/N)
   LIBRARY ===> C1DEMO                   WHERE CCID EQ     ===>
   TYPE    ===> CNTRL                    WHERE PROC GRP EQ ===>
   MEMBER  ===>                          BUILD USING MAP   ===> N (Y/N)
                                         FIRST FOUND       ===> Y (Y/N)
TO OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
```

6.2.3 Option Field

The OPTION field on request panels allows you to specify the processing you wish to perform.

Use this option	To...
Blank	Produce a list of elements or members from which to select for action processing. Endevor produces a list only when DISPLAY LIST = Y.
R	Execute the action (in this case RETRIEVE) when you press ENTER after providing information on the panel.

Use this option	To...
S, M, B, C, H	Display one of the following element information panels: Summary of Levels (**S**), Element Master Info (**M**), Element Browse (**B**), Element Changes (**C**), or Element History (**H**). These options can be used in conjunction with either an element selection list or a specific element name to view information about an element prior to executing an action.

6.2.4 Endevor Fields

Endevor fields appear under the headings FROM Endevor or TO Endevor. They specify the:

- Target of ADD, UPDATE, and RESTORE actions.
- Starting point for ARCHIVE, MOVE, RETRIEVE, and certain GENERATE actions.
- Starting point and target for certain TRANSFER actions.
- Location for the execution of DELETE and certain GENERATE actions.

The following rules apply when typing information in Endevor fields:

- Names must be in the national character set: A-Z, 0-9, @, #, and $.
- You can use a name mask when specifying these fields. See the section Name Masking for more information on specifying a mask character.
- The default is the current specification. All fields are modifiable when requesting an action.

Field	Description
Environment	The 1- to 8-character name of the environment that is the source, target, or location of the action.
System	The 1- to 8-character name of the system associated with the element(s) to be processed.
Subsystem	The 1- to 8-character name of the subsystem associated with the element(s) to be processed.
Element	The 1- to 8-character name of the element(s) you want to process. Endevor supports CA-Panvalet 10-character element names in this field for certain actions.

Field	Description
Type	The 1- to 8-character name of the type associated with the element(s) to be processed.
Stage	The 1-character ID of the stage that is the source, target, or location of the action.

6.2.5 ISPF Library Fields

ISPF library fields appear under the headings FROM ISPF LIBRARY or TO ISPF LIBRARY. They are standard ISPF data set specification fields that identify an external data set and member(s) that are the:

- Source for ADD, UPDATE, RESTORE, and certain TRANSFER actions.
- Target for ARCHIVE, RETRIEVE, and certain TRANSFER actions.

The data set can be a partitioned data set (PDS or PDS/E), a CA-Librarian or a CA-Panvalet library, or a sequential file.

When the external data set is the source of the action and you leave the OPTION field blank, Endevor produces the selection list based on the values in the MEMBER and THRU MEMBER fields.

6.2.6 Other Partitioned or Sequential Data Set Field

Use this field as an alternative to the FROM ISPF LIBRARY or TO ISPF LIBRARY fields to define source or target external data sets and members. Type the data set and member specification in *'data set(member)'* format.

6.2.7 CCID and Comment Fields

Use the CCID field to associate a change control identifier (CCID) with an action. CCIDs are discussed in the *Administration Guide*.

The COMMENT field allows you to provide 1 to 40 characters of description about an action.

Both CCIDs and comments may be required. This requirement is determined on the system level. If either is required and you do not provide it on the action request, one of the following happens:

- An Action Prompt panel appears when you press ENTER in foreground. You can provide the CCID and/or comment on this panel.
- The action fails when submitted in batch.

Endevor updates certain Master Control File fields with CCID and comment information. A table summarizing these updates appears later in this section.

6.2.8 List Options Fields

The LIST OPTIONS fields include the following.

Field	Description
Display List	Indicates whether you want to use list panels when requesting this action: **Y** (yes) or **N** (no). Default is **Y**.
Where CCID Eq	A CCID can be specified here to limit the selection list to only those elements whose last level, action or generate CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. The specified CCID can match the one in any of the following sections of the element's Master Control File: ■ Last Element Modification ■ Current Source ■ Generate
Where Proc Grp Eq	A processor group can be specified here to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map when building a list of elements for the requested action, starting at the from location **Warning:** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N. Once you press ENTER with the Confirmation panel displayed, you **cannot** cancel the processing until all selected elements or members have been processed.
First Found	This options tells Endevor whether or not to use the first instance of the element found along the map when executing the action.

6.3 Impact of Actions

6.3.1 Overview

As Endevor executes each action request, it performs source management, inventory management, and output management.

- *Source management* pertains to the maintenance of the element source, that is, updating of the base and delta libraries.
- *Inventory management* pertains to the maintenance of Master Control File definitions.
- *Output management* pertains to the creation and/or maintenance of outputs: object modules, load modules, listings, etc.

6.3.2 Actions and Signout Status

Endevor provides a signout capability that can be enabled on a system by system basis. The impact of Endevor actions on the signout status of elements is summarized in the table that follows. *Note that this table is broken into two sections so that the table headings and footnotes can be read easily*.

Action	Element Exists (1)	Signout Upon Fetch in Effect (2)	Source Element (3)	Target Element
Add	Y	Y	Signs out if not signed out to someone else	Signs out
		N	No change	Signs out
	N	Y	NA	Signs out
		N	NA	Signs out
Archive	NA	Y	No change	NA
		N	No change	NA
Copy	NA	Y	No change	NA
		N	No change	NA
Delete	NA	Y	NA	NA
		N	NA	NA
Edit (Quick-Edit)	Y	Y	Signs out if not signed out to someone else	Signs out

Action	Element Exists (1)	Signout Upon Fetch in Effect (2)	Source Element (3)	Target Element
		N	No change	Signs out
Edit (Quick-Edit)	N	Y	NA	Signs out
		N	NA	Signs out
Generate with copyback	Y	Y	Signs out if not signed out to someone else	Signs out
		N	No change	Signs out
Generate without copyback	N	Y	NA	No change
		N	NA	No change
Move	Y	Y	NA (4)	Signs in
		N	NA (4)	Signs in
	N	Y	NA	Signs in
		N	NA	Signs in
Restore	NA	Y	NA	Signs in
		N	NA	Signs in
Retrieve	NA	Y	Signs out	NA
		N	Signs out	NA
Search with update	Y	Y	Signs out if not signed out to someone else	Signs out
		N	No change	Signs out
	N	Y	NA	Signs out
		N	NA	Signs out
Signin	NA	Y	Signs in	NA
		N	Signs in	NA
Transfer	Y	Y	NA 4	Signs in
		N	NA 4	Signs in
	N	Y	NA	Signs in
		N	NA	Signs in

Action	Element Exists (1)	Signout Upon Fetch in Effect (2)	Source Element (3)	Target Element
Update	Y	Y	NA	No change
		N	NA	No change

1. If an element exists up the map, then a fetch will be performed. A fetch is a copyback of the element with all delta levels intact.

2. See the section Endevor Defaults TYPE=MAIN Parameters in the *Installation Guide* for information about Signout Upon Fetch.

3. In a fetch situation for Add, Edit, Generate with Copyback, and Search with Update, the source element is the fetched element. If Signout Upon Fetch is in effect, the fetched element will be signed out to you if it is not signed out to someone else.

4. In a fetch situation for Move and Transfer, the source element is the element at the FROM location of the action. If Signout Upon Fetch is in effect, the fetched element (up the map) will be signed out to you if it is not signed out to someone else.

6.3.3 Signout Options

The Signout options are described as follows:

- Override signout--Perform an action when an element is not signed out to you.
- Retain signout--Retain the source signout at the target location of an action.
- Signout to--Sign the element out to another user.
- Signout element--Retrieve an element with or without signing it out.

6.3.4 Impact of Actions on CCIDs and Comments

You can specify a CCID and/or comment when you request ADD, UPDATE, RETRIEVE, GENERATE, MOVE, TRANSFER, DELETE, RESTORE, and ARCHIVE actions. Endevor updates CCID and/or COMMENT fields, in up to six places, with the CCID and/or comment specified on the action panel. Whether a CCID and/or comment is updated depends on the action's effect on the source and outputs managed by Endevor.

The six CCID and/or COMMENT fields that may be updated are listed below, along with an explanation of the information provided by each pair of fields on the list.

These CCID and/or Comment Fields...	Contain This Information
Last Action CCID and/or comment	The CCID and/or comment used the last time any action was performed that updated Endevor (for every action except RETRIEVE). This CCID and/or comment is stored in the Master Control File.
Current Source CCID and/or comment	The CCID and/or comment used the last time an Endevor action changed the source. This CCID and/or comment is stored in the Master Control File.
Generate CCID and/or comment	The CCID and/or comment used the last time an Endevor action caused output processing to occur. Output processing occurs when a processor is run or an output data set is updated. This CCID and/or comment is stored in the Master Control File.
Retrieve CCID and/or comment	These fields only reflect the CCID and/or comment used during the RETRIEVE action if the last action at that stage was RETRIEVE. This CCID and/or comment is stored in the Master Control File. Viewing this information allows you to determine which elements have been retrieved for update for a particular project.
Source Delta CCID and/or comment	Each delta level contains the CCID and/or comment specified in the action that created the delta level.
Component List Delta CCID and/or comment	Each component list delta level contains the CCID and/or comment specified in the action that created the delta level.

The fields that Endevor updates depend on the action you specify. The following chart summarizes the impact of Endevor actions on CCID and COMMENT fields.

Action	Current Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Add--New Element	Set	Set if changed	Set		Set	Set if generated
Add--Element Exists	Set if changed	Set if generated	Set		Set	Set if generate creates a delta
Update	Set if changed	Set if generated	Set		Set if changed	Set if generate creates a delta

Action	Current Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Retrieve				Set		
Generate -- Without Copyback		Set	Set			Set if generate creates a delta
Generate -- With Copyback	Set to copied back value	Set	Set		Set to copied back value	
Signin				Clear		
Delete						
Restore	Set from Archive	Set if generated	Set	Set from Archive	Set from Archive	Set if generated
Archive						
Move-- Without History	Set from start location value	Set from start location value	Set	Clear	Set from last start location delta value	Set from last start location delta value
Move-- With History	Set from start location value	Set from start location value	Set	Clear	Carried with delta levels	Carried with delta levels
Transfer -- Without History	Set from previous stage value	Set if gen-erated	Set	Clear	Set from last delta value previous stage	Set if generated
Transfer -- With History	Set from previous stage value	Set if generated	Set	Clear	Carried with delta levels	Set if generated

Action	Current Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Transfer -- With SYNC	Set from previous stage value	Set if generated	Set	Clear	Set from base value. Carried with delta levels & on sync level	Set if generated

6.4 Display Elements

6.4.1 Display Elements Panel

Use the Display option to display source and Master Control File information about an element. When you select this option, Endevor returns the Display Elements panel (or Display Elements/Component List panel, if you are an Endevor ACM user). Use this panel to request any of the options listed.

```
------------------  Display Elements/Component Lists  ---------------------
OPTION  ===>

   blank - Display selection list      B - Browse element current level
   S - Display summary of levels       C - Display changes current level
   M - Display element master info     H - Display history current level

   Enter SX, BX, CX or HX to display component list information

FROM Endevor:                         LIST OPTIONS:
  ENVIRONMENT ===> DOC                   DISPLAY LIST         ===> Y (Y/N)
  SYSTEM      ===> FINANCE               WHERE CCID EQ        ===>
  SUBSYSTEM   ===> *                     WHERE PROC GRP EQ    ===>
  ELEMENT     ===>                       DISPLAY SYS/SBS LIST ===> Y (Y/N)
  TYPE        ===> *                     BUILD USING MAP      ===> N (Y/N)
  STAGE       ===>             A - TEST         B - PROD
```

6.5 Add Elements Action

6.5.1 Before You Begin

Before you use the Add action for the first time, review the following information:

- Use--Use the ADD action to put a sequential data set, PDS or PDS/E, CA-Panvalet, or CA-Librarian member under control of Endevor. You can also add load modules (RECFM=U) and binary files to Endevor.

  You can add members only to Stage 1, and only when there is no element with the same name in the target Stage 1.

  The UPDATE action allows you to add a member to Endevor when an element with the same name is in the target Stage 1.

- Availability--You can add members to Endevor in foreground, batch, and in packages.

- Specification--Use the Add/Update Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.5.2 Add Considerations

Before adding a member into Endevor, make sure that:

- An element with the same name is not already in the target Stage 1. If an element with the same name is in Stage 1, you can:
  - Add the member, specifying the UPDATE IF PRESENT option.
  - Add the member, using the UPDATE option.
  - Wait until the element has been moved out of Stage 1, then add the member.

  Check with the current owner of the element and/or the Endevor administrator to determine the best course of action. Otherwise, the ADD action fails.

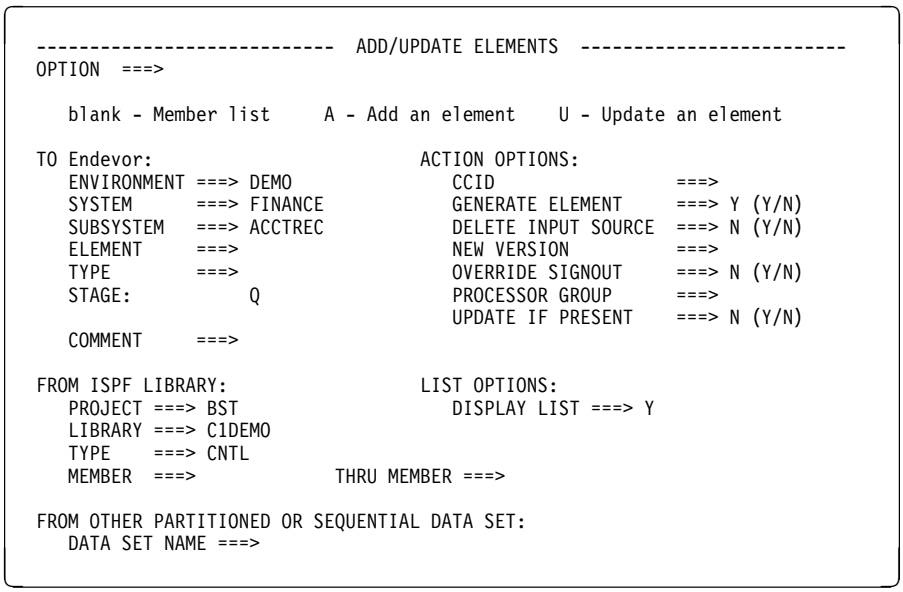
- The element corresponding to the member you wish to add is signed out to you. If the existing element is signed out to someone else, you can:
  - Add the member, specifying the OVERRIDE SIGNOUT option.

    Caution! Use the OVERRIDE SIGNOUT option with caution to avoid regressing changes made by another user.
  - Have the current owner of the element or the administrator sign the element out to you, then add the member.
  - Sign the element in using the SIGNOUT TO option.

Otherwise, the ADD action fails.

6.5.3 Add/Update Elements Panel

The Add/Update Elements panel is shown next.



```
----------------------------  ADD/UPDATE ELEMENTS  -------------------------
OPTION  ===>

   blank - Member list     A - Add an element    U - Update an element

TO Endevor:                              ACTION OPTIONS:
   ENVIRONMENT ===> DEMO                    CCID                 ===>
   SYSTEM      ===> FINANCE                 GENERATE ELEMENT     ===> Y (Y/N)
   SUBSYSTEM   ===> ACCTREC                 DELETE INPUT SOURCE  ===> N (Y/N)
   ELEMENT     ===>                         NEW VERSION          ===>
   TYPE        ===>                         OVERRIDE SIGNOUT     ===> N (Y/N)
   STAGE:           Q                       PROCESSOR GROUP      ===>
                                            UPDATE IF PRESENT    ===> N (Y/N)
   COMMENT     ===>

FROM ISPF LIBRARY:                       LIST OPTIONS:
   PROJECT ===> BST                         DISPLAY LIST ===> Y
   LIBRARY ===> C1DEMO
   TYPE    ===> CNTL
   MEMBER  ===>             THRU MEMBER ===>

FROM OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
```

6.5.4 Fields

The Add/Update Element panel fields are described next:

6.5.4.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use This Option	To...
Blank	Return a list of members in the source library. This only applies when DISPLAY LIST = Y.
A	Add one or more members. If you specify a member name that already exists, Endevor either rejects the ADD operation or replaces the old member with the one you are adding based on the value in the UPDATE IF PRESENT field.
U	Update an element in Stage 1.

6.5.4.2 To Endevor Fields

Use these fields to define the element you want to add or update.

Field	Description
Environment	The name of the target environment.
System	The system associated with the element(s) to be added/updated.
Subsystem	The subsystem associated with the element(s) to be added/updated.
Element	The name to be assigned to the member after it has been added or updated. Acceptable values for this field depend on the entries in the MEMBER and THRU MEMBER fields. If these fields: ■ Specify a single member name, you can leave ELEMENT blank to use the member name as the element name, or provide a different element name. ■ Are blank or specify a range of members, you must leave ELEMENT blank.
Type	The name of the type associated with the element to be added/updated.
Stage	The name of the target stage. The target stage must be Stage 1 in the target environment. This field is display only.

6.5.4.3 Comment Field

Use the COMMENT field to provide a 1- to 40-character comment explaining the action. When adding a member to Endevor for the first time the comment becomes the element description in the Master Control File.

6.5.4.4 Action Options Fields

Use the ACTION OPTIONS to further define your action request.

Field	Description
CCID	CCID associated with the request.

Field	Description
Generate Element	Tells Endevor whether to generate the element after adding it. ■ **Y**--Default. Generate the element. ■ **N**--Do not generate the element. Endevor does not populate the source output library.
Delete Input Source	Tells Endevor whether to delete the library member (or data set if the library is a sequential file) after adding it. ■ **Y**--Delete the input member. ■ **N**--Default. Do not delete the input member.
New Version	Applicable **only** for an ADD action. This is the version number (rr) for the new element. Acceptable values are 01-99. Default is 01 (for new elements), or the Stage 2 version number, if the element currently exists in Stage 2.
Override Signout	Tells Endevor whether to add or update an element even if it is not signed out to you. ■ **Y**--Add or update the element, even if it is not signed out to you. Endevor signs the element out to you if you specify this option. ■ **N**--Default. Do not add or update the element if it is not signed out to you.
Processor Group	The name of the processor group to be associated with the element. You can type a processor group name in this field or use a name mask to access a list of processor groups from which you can select. See the section Name Masking for more information on specifying a mask character. If you do not provide a processor group name, Endevor selects a processor group. For more information on how Endevor selects this processor group, see the section Add Processing, later in this chapter.
Update If Present	Tells Endevor whether to add a member when an element with the same name exists at the target Stage 1. ■ **Y**--Add the member, even if an element with the same name exists. ■ **N**--Default. Do not add the member if an element with the same name exists.

6.5.4.5 From ISPF Library Fields

Use these fields to specify the member or range of members that you want to add or update. If the named data set is a library, and you:

- Provide a single member name in these fields, and leave the ELEMENT field blank, Endevor uses the member name as the element name. To change the element name, type the new name in the ELEMENT field.
- Leave the member field blank, provide a name mask, or specify a range of members, you must leave the ELEMENT field blank. To change the element name, use the selection list.

If you leave the OPTION field blank, Endevor produces the selection list based on the values in the MEMBER and THRU MEMBER fields.

6.5.4.6 From Other Partitioned or Sequential Data Set Field

As an alternative to the FROM ISFP LIBRARY fields, enter the data set name, and member if data set is a library, in '*data set(member name)* ' format. To provide a range of members when using this format, specify the end of the range in the THRU MEMBER field.

6.5.4.7 List Options Field

Indicate whether you want to use list panels when requesting this action: **Y** (yes) or **N** (no). The default is **Y**.

6.5.5 Member Selection List for Add/Update Action

Endevor returns a Member Selection List when the source data set is a library, DISPLAY LIST = **Y**, and either of the following is true:

- The OPTION field is blank.
- Both the ELEMENT and MEMBER fields are blank or have a name mask.

Use this list to select the member(s) to be added or updated.

Note: Endevor supports the ISPF Locate command on Member Selection Lists.

```
ADD/UPDATE ---------------  MEMBER SELECTION LIST  ------------  ROW 1 OF 94
COMMAND ===>                                                 SCROLL ===> PAGE
FROM  Data set:    BST.C1DEMO.CNTL
TO    Environment: DEMO     System: FINANCE  Subsystem: ACCTPAY  Stage: Q
                                                                       NEW
   MEMBER     ELEMENT    TYPE     COMMENT                             VERSION
   $REQPDS
   ARCHLIST
   ARCHLST2
   ASM
   BC1JACCT
   BC1JCMPR
   BC1JDEFT
   BC1JFOOT
   BC1JJB02
   BC1JJB03
   BC1JJB04
   BC1JPAN
   BC1JREPR
   BC1JRSCT
   BC1JSAS1
   BC1JSMFS
   BC1JUSRT
```

The Member Selection List displays source library members that meet the criteria in the MEMBER and THRU MEMBER fields on the Add/Update Elements panel.

The FROM and TO information for the request are displayed at the top of the panel, above the member listing. The rest of the panel presents the members in the from data set.

From this list, you can select one or more members to be:

- Added, by placing an **A** to the left of a member.
- Updated, by placing a **U** to the left of a member.

The ELEMENT field initially displays the member name as a default entry. You can change the name in the ELEMENT field if you want the element name to differ from the member name.

The TYPE, COMMENT, and NEW VERSION fields initially display the information from the Add/Update Elements panel. You can change the information in these fields before selecting a member(s) for processing.

When you press ENTER, Endevor adds or updates the member, then returns this panel with an appropriate message next to each selected member. If you want more detailed information than this message provides, browse the listing data set identified on the returned screen (*userid*.C1TEMPR*n*.MSGS).

6.5.6 Fields

The Member Selection List panel fields are described next. All these fields can be modified except FROM, TO, and MEMBER.

Field	Description
From	Indicates the from data set for the ADD/UPDATE request.
To	The environment, system, subsystem, and stage to which the member is being added or updated.
Selection (no title)	Used to select a member for processing. Type **A** in this column to add a member; type **U** in this column to update a member.
Member	The name of the member in the from data set.
Element	Defaults to the member name. Type an element name if you want it to be different from the member name. This field also displays messages such as *ADDED or *UPDATED after Endevor has executed the action.
Type	Type associated with the element.
Comment	Comment describing the action.
New Version	Applicable for an ADD action only. This is the version number under which the element is being added. Acceptable values are 01-99. If you leave this field blank, the version number defaults to 01, if this is a new element, or to the Stage 2 version number, if the element currently exists in Stage 2.

6.5.7 Impact of Add/Update Actions on CCIDs and Comments

ADD and UPDATE actions have the following impact on CCIDs and comments associated with the elements being added or updated.

Action	Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Add--New Element	Set	Set if changed	Set		Set	Set if generated

Action	Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Add--Element Exists	Set if changed	Set if generated	Set		Set	Set if generate creates a delta
Update	Set if changed	Set if generated	Set		Set if changed	Set if generate creates a delta

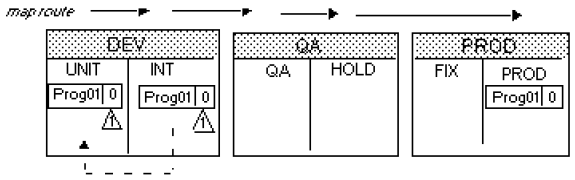
Note: If you specify GENERATE ELEMENT = N (no), the UPDATE and ADD actions do **not** set the generate or component delta CCIDs/comments.

6.5.8 Add Processing

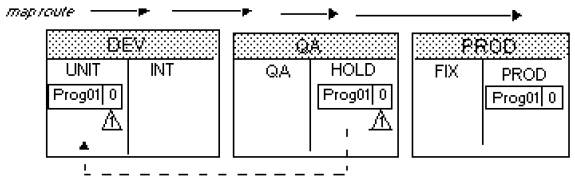
When you add a member, Endevor:

1. Ensures the element is signed out to you, and does not exist in Stage 1.
2. Searches beyond Stage 1 for an element with the same name

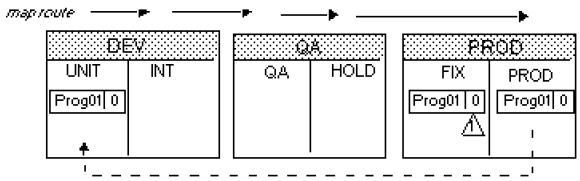
   If Endevor does not find the element in Stage 2, it searches every stage in subsequent environments in the map. If it finds the element in a stage in the map, Endevor copies the current version of the element to the target Stage 1, along with the processor group name last used for the element.



   If you code the NEW VERSION option, the element is not copied back to Stage 1 from Stage 2. Endevor assigns the version number you specify.

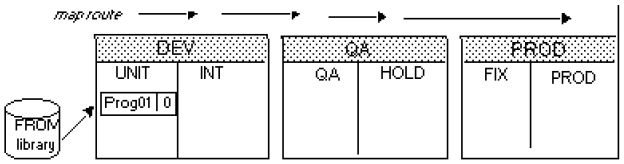


   If Endevor finds the element at a stage not included in the map, it issues a warning message, then continues to search for an element in a stage that is included in the map.

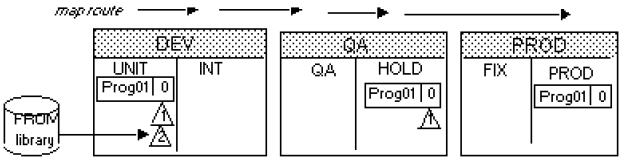


3. Compares the member being added with the Stage 1 base.

   If Endevor did not find the element in either Stage 2 or along the map, it creates the element in Stage 1 with a version number of 01 and a base level of 00 (zero).



   If Endevor built a Stage 1 base, it compares the member being added to that base, and builds a new level with any changes.



   If Endevor does not detect any changes it issues a warning message.

4. Updates the Master Control File (MCF).

   Note that the value specified for Signout Upon Fetch (the SOFETCH parameter) in the Endevor Defaults Table will effect how the MCF will be updated for the element copied back (fetched).

   If Signout Upon Fetch is in effect, the element will be signed out to you unless it is already signed out to someone else.

   If Signout Upon Fetch is not in effect, the element will not be signed out to you.

   See the *Installation Guide* for more information about Signout Upon Fetch (the SOFETCH parameter) in the Defaults table.

5. Continues based on the value in the GENERATE ELEMENT field. If the value in this field is **N**, Endevor does not generate the element. If the value in this field is **Y**, Endevor:

   - Reads the type definition for a source output library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y**, Endevor expands INCLUDE statements in the source.
   - Determines the processor group to use (see Appendix A, "Actions and Processor Groups," for information), then executes the generate processor in that group if one has been specified. After the generate processor has been run for the element, Endevor updates the processor information in the Master Control File.

6. If DELETE INPUT SOURCE = **Y**, Endevor deletes the member indicated in the FROM library.

6.6 Archive Action

6.6.1 Before You Begin

Before you use the Archive action for the first time, review the following information:

- Use--Use the ARCHIVE action to write all levels of an element to a sequential file (known as an *archive data set*).

  For Endevor ACM users, the ARCHIVE action writes the base level and all change levels of the Component List to the archive data set.

  The ARCHIVE action can be used to:

  – Maintain a backup copy of the element source.

  – Delete the existing version of a particular element from Stage 1 or 2.

  – Maintain an archive version of the element source, that is, to maintain a version of the element source "outside of" Endevor.

    Once an element has been archived, the COPY, LIST, RESTORE, and TRANSFER actions can be executed against the archive data set.

- Availability--You can archive elements only in batch and in packages.

- Specification--Use the Archive Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.6.2 Archive Elements Panel

The Archive Elements panel is shown next.

```
------------------------------  ARCHIVE ELEMENTS  ----------------------------
 OPTION  ===>
                                ELEMENT DISPLAY OPTIONS:
    blank - Element list           S - Summary   B - Browse    H - History
    V - Archive element            M - Master    C - Changes
 FROM Endevor:                        ACTION OPTIONS:
   ENVIRONMENT ===> DOC                  CCID                  ===>
   SYSTEM      ===> FINANCE              DELETE FROM ELEMENT   ===> N (Y/N)
   SUBSYSTEM   ===> *                    OVERRIDE SIGNOUT      ===> N (Y/N)
   ELEMENT     ===>
   TYPE        ===> *
   STAGE       ===>      D-CSTAGE   P-CPROD
   COMMENT     ===>
 TO FILE       ===>                    LIST OPTIONS:
                                          DISPLAY LIST       ===> Y (Y/N)
                                          WHERE CCID EQ      ===>
                                          WHERE PROC GRP EQ  ===>
                                          BUILD USING MAP    ===> N (Y/N)
```

6.6.3 Fields

The Archive Elements panel fields are described next.

6.6.3.1 Option Field

Use this field to specify the processing you want.

Use This Option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
V	Generate Archive SCL based on panel information.
S, M, B, C, H	Display one of the listed element information panels.

6.6.3.2 From Endevor Fields

Use these fields to identify the source location for the ARCHIVE request and the elements to be archived.

Field	Description
Environment	Name of the current environment.
System	System associated with the element(s) to be archived.
Subsystem	Subsystem associated with the element(s) to be archived.
Element	Element(s) you want to archive.
Type	Type associated with the element(s) to be archived.
Stage	ID of the current stage.

6.6.3.3 Comment Field

Comment describing the ARCHIVE request.

6.6.3.4 To File Field

Use this field to specify the DDname for the archive data set. Make sure to include the JCL for this data set when you submit the batch job for execution (using the INCLUDE JCL field on the Batch Options Menu.).

The DCB must specify variable blocked records (RECFM=VB), a minimum LRECL of 1021, DSORG=PS, and a blocksize equal to your LRECL + 4 (minimum 1025). When archiving to tape, the recommended blocksize is 32,000.

6.6.3.5 Action Options Field

These fields allow you to specify information for the action request.

Field	Description
CCID	CCID associated with the request.
Delete From Element	**Y** (yes) to delete the element; **N** (no) to retain the element after it is archived. Default is **N**.
Override Signout	Applicable when signin/signout is in effect. **Y** (yes) to archive the element even if it is not signed out to your user ID; **N** (no) to disallow the ARCHIVE action unless the element is signed out to you. Default is **N**.

6.6.3.6 List Options Field

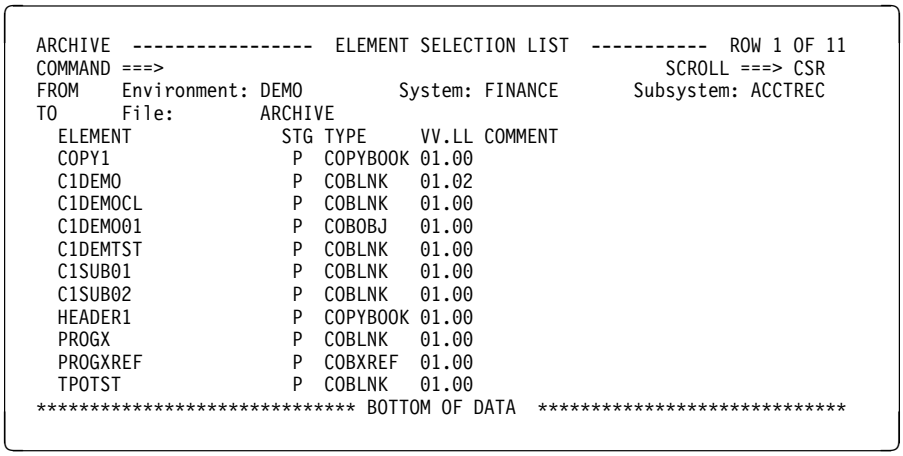
Use the LIST OPTIONS to limit the elements in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y.**
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map, beginning at the from location, when building a list of elements to be archived. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N. Once you press ENTER with the Confirmation panel displayed, you **cannot** cancel the processing until all selected elements or members have been processed.

6.6.4 Element Selection List for the Archive Action

Endevor returns an Element Selection List if you do not fully specify the ARCHIVE request and DISPLAY LIST = Y. You can restrict this list to a range of elements by typing a name mask in the ELEMENT and/or TYPE fields. See the section Name Masking for more information on specifying a mask character.

Note: Endevor supports the ISPF Locate command on Element Selection Lists.



```
ARCHIVE  -----------------  ELEMENT SELECTION LIST  -----------  ROW 1 OF 11
COMMAND ===>                                                  SCROLL ===> CSR
FROM    Environment: DEMO         System: FINANCE       Subsystem: ACCTREC
TO      File:        ARCHIVE
  ELEMENT              STG TYPE     VV.LL COMMENT
  COPY1                 P  COPYBOOK 01.00
  C1DEMO                P  COBLNK   01.02
  C1DEMOCL              P  COBLNK   01.00
  C1DEMO01              P  COBOBJ   01.00
  C1DEMTST              P  COBLNK   01.00
  C1SUB01               P  COBLNK   01.00
  C1SUB02               P  COBLNK   01.00
  HEADER1               P  COPYBOOK 01.00
  PROGX                 P  COBLNK   01.00
  PROGXREF              P  COBXREF  01.00
  TPOTST                P  COBLNK   01.00
****************************** BOTTOM OF DATA  ******************************
```

Use the Element Selection List panel to:

- Select one or more elements to be archived, by typing a **V** to the left of each element you want.
- Display information for one or more elements, by typing **S** (display), **M** (master), **B** (browse), **C** (changes), or **H** (history) to the left of each element for which you want to display information.

The following list describes the panel fields. With the exception of the SELECTION and COMMENT fields, all fields are display-only.

Field	Description
From Environment, System, Subsystem	Environment, system, and subsystem for the element being archived.
To	DDname for the TO archive data set.
Selection (no title)	Allows you to specify processing to be performed against the element.
Element	Name of the element.
Message (no title)	Used to display messages, such as *WRITTEN.
Stg	ID of the stage where the element resides.
Type	Name of the element type.
VV.LL	Version/level for the element at the current stage.
Comment	Comment associated with the Archive request. Defaults to the comment on the Archive Elements panel.

6.6.5 Archive Processing

When you archive elements, Endevor:

1. Checks the value in the DELETE FROM ELEMENT field. If DELETE FROM ELEMENT = N, Endevor skips to Step 3 below. Otherwise, it executes Step 2.
2. Checks whether the element has been signed out. If the element has been signed out to a person other than you, you must use the OVERRIDE SIGNOUT option in order to perform this action.
3. Writes out the archive information (base and delta information from the Master Control File, as well as any additional information about the element) to the archive data set.

   The Master Control File does not reflect ARCHIVE processing.
4. If DELETE FROM ELEMENT = Y, Endevor runs standard delete processing for the element.

6.7 Copy Action

6.7.1 Before You Begin

Before you use the COPY action for the first time, review the following information:

- Use--Use the COPY action to copy an element from an archive data set to a data set external to Endevor. The external data set can be a library (that is, a CA-Panvalet file, a CA-Librarian file, or a partitioned data set) or a sequential file. The element is not restored to the Master Control File.
- Availability--COPY is available in batch only, and is not available through the Build Request panel. COPY processing is strictly external to Endevor.
- Specification--For the COPY action syntax, see the *SCL Reference Guide*.

6.7.2 Copy Processing

The processing sequence for the COPY action is described below:

1. If the TO data set is a library and the TO member already exists in that library, Endevor rejects the request unless you specify REPLACE MEMBER = Y. You can specify a different member name; Endevor then assigns that name.
2. If the TO member does not already exist in the external data set or the external data set is not a library, Endevor writes the current level of the element to that data set.
3. If the TO location data set is a library, Endevor creates a new member for each COPY request. By default, the member name assigned is the same as the element name.
4. As the last step in COPY processing, Endevor footprints the copied element. Therefore, you can run footprint reports (described in the *Reports Guide*) as necessary.

6.8 Delete Action

6.8.1 Before You Begin

Before you use the Delete action for the first time, review the following information:

- Use--Use the DELETE action to delete *all levels* of an element, any associated processor outputs from either stage and, if you are using the Endevor Automated Configuration Manager (ACM), the component list for the element. If you are using ACM, you can also elect to delete only the component list for an element.
- Availability--You can delete elements in foreground, batch, and in packages.
- Specification--Use the Delete Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.8.2 Delete Elements Panel

The Delete Elements panel is shown next:

```
------------------------------  DELETE ELEMENTS  ----------------------------
 OPTION  ===>
                                ELEMENT DISPLAY OPTIONS:
    blank - Element list          S - Summary   B - Browse   H - History
    # - Delete element            M - Master    C - Changes

 FROM Endevor:                    ACTION OPTIONS:
   ENVIRONMENT ===> DOC                 CCID         ===>
   SYSTEM      ===> FINANCE             OVERRIDE SIGNOUT ===> N (Y/N)
   SUBSYSTEM   ===> *                   ONLY COMPONENT   ===> N (Y/N)
   ELEMENT     ===>
   TYPE        ===> *
   STAGE       ===>          A - TEST         B - PROD

   COMMENT     ===>

 LIST OPTIONS:
   DISPLAY LIST      ===> Y (Y/N)
   WHERE CCID EQ     ===>
   WHERE PROC GRP EQ ===>
```

6.8.3 Fields

The Delete Elements panel fields are described next:

6.8.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use this option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
#	Delete the element.
S, M, B, C, H	Display one of the following element information panels: Summary of Levels (**S**), Element Master Info (**M**), Element Browse (**B**), Element Changes (**C**), or Element History (**H**).

6.8.3.2 From Endevor Fields

Use these fields to define the element you want to delete.

Field	Description
Environment	The name of the environment where the element(s) reside.
System	The system associated with the element(s) to be deleted.
Subsystem	The subsystem associated with the element(s) to be deleted.
Element	The name of the element(s) to be deleted. You can specify a name mask in this field.
Type	The name of the type associated with the element to be deleted.
Stage	The name of the stage where the elements to be deleted reside.

6.8.3.3 Comment Field

Use the COMMENT field to provide a 1- to 40-character comment explaining the action.

6.8.3.4 Action Options Fields

Use the ACTION OPTIONS to further define your action request.

Field	Description
CCID	CCID associated with the action. If you specify a CCID, it is logged to SMF (if SMF is enabled) and is available to Endevor exits.
Override Signout	Tells Endevor whether to delete an element even if it is not signed out to you. ■ **Y**--Delete the element, even if it is not signed out to you. Endevor signs the element out to you if you specify this option. ■ **N**--Default. Do not delete the element if it is not signed out to you.
Only Component	Applicable for Endevor ACM users only. Indicates whether you want to delete both the element component list and the element, or the element component list only. ■ **Y**--Delete just the element component list ■ **N**--Default. Delete the element as well as the element component list.

6.8.3.5 List Options Fields

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y**.
Where CCID Eq	Use a CCID to limit the list to the elements whose last level, action or generate CCID matches the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.

6.8.4 Delete Processing

When you delete an element, Endevor:

1. First ensures that the element currently exists in the stage specified, and whether the element is signed out to you. If the element has been signed out to a person other than you, you must use the OVERRIDE SIGNOUT option in order to perform the DELETE action.
2. Deletes the element from its associated source output library, if one has been defined for the element's type.

3. Determines the processor group last associated with the element (see Appendix A, "Actions and Processor Groups," for information), then executes the delete processor in that group if one has been specified.
4. Deletes the element base level and all change levels. The system then updates the Master Control File to reflect this processing.

Note: When the Automated Configuration Manager (ACM) is installed, both the element and its component list are deleted when the DELETE action is performed.

6.9 Generate Action

6.9.1 Before You Begin

Before you use the Generate action for the first time, review the following information:

- Use--Generating an element creates outputs: object modules, load modules, listings, etc. You determine the kinds of outputs produced in the generate processor(s) that you write for each type in your software inventory. For more information on processors and processor groups, see the *Extended Processors Guide*.

  Endevor generates elements:

  - Automatically, when you add, update, transfer, or restore them, unless you specify GENERATE ELEMENT = N.
  - Explicitly, when you execute an explicit GENERATE action.

- Availability--You can generate elements in foreground, batch, and in packages.
- Specification--Use the Generate Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.9.2 Generate Elements Panel

The Generate Elements panel is shown next:

```
-----------------------------  GENERATE ELEMENTS  -------------------------
OPTION  ===>
                              ELEMENT DISPLAY OPTIONS:
   blank - Element list          S - Summary   B - Browse    H - History
   G - Generate element          M - Master    C - Changes

FROM Endevor:                    ACTION OPTIONS:
  ENVIRONMENT ===> DOC                CCID             ===>
  SYSTEM      ===> FINANCE            COPYBACK         ===> N (Y/N)
  SUBSYSTEM   ===> *                  OVERRIDE SIGNOUT ===> N (Y/N)
  ELEMENT     ===>                    PROCESSOR GROUP  ===>
  TYPE        ===> *
  STAGE       ===>        D - CSTAGE  P - CPROD

  COMMENT     ===>

LIST OPTIONS:
  DISPLAY LIST      ===> Y (Y/N)
  WHERE CCID EQ     ===>
  WHERE PROC GRP EQ ===>
  BUILD USING MAP   ===> N (Y/N)
```

Caution! Do not execute a stand-alone GENERATE action against a load module. Doing so can result in change regression because generate processors update the output

library, not the actual source. If you want to update a load module, issue an ADD or UPDATE action with GENERATE ELEMENT = Y.

6.9.3 Fields

The Generate Elements panel fields are described next.

6.9.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use This Option	To:
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
G	Generate the element.
S, M, B, C, H	Display one of the listed element information panels.

6.9.3.2 From Endevor Fields

Use these fields to specify the location of the GENERATE action and the elements to be generated.

Field	Description
Environment	The name of the environment where an element is to be generated, and the target environment for generating an element with copyback.
System	The system associated with the element(s) to be generated.
Subsystem	The subsystem associated with the element(s) to be generated.
Element	The 1- to 8-character name of the element(s) to be generated.
Type	The name of the type associated with the element to be generated.
Stage	The name of the environment where an element is to be generated, and the target environment for generating an element with copyback.

6.9.3.3 Comment Field

Use the COMMENT field to provide a 1- to 40-character comment explaining the action.

6.9.3.4 Action Options Fields

Use the ACTION OPTIONS fields to further define your action request.

Field	Description
CCID	CCID associated with the GENERATE request.
Copyback	Indicates whether you want to copy the element to the FROM stage and generate it at that stage: **Y** (yes) or **N** (no). For more information, see Generating Elements Without Copyback, later in this chapter.
Override Signout	Tells Endevor whether to generate an element even if it is not signed out to you. ■ **Y**--Generate the element, even if it is not signed out to you. Endevor signs the element out to you if you specify this option. ■ **N**--Default. Do not generate the element if it is not signed out to you.
Processor Group	The name of the processor group to be associated with the element. You can type a processor group name in this field or use a name mask to access a list of processor groups from which you can select. See the section Name Masking for more information on specifying a mask character. If you do not provide a processor group name Endevor selects a processor group. For information on how Endevor selects this processor group, see the *Extended Processors Guide*.

6.9.3.5 List Options Fields

Use these options to limit the elements in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for requesting this action: **Y** (yes) or **N** (no). Default is **Y**.

Field	Description
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map when building a list of elements for generation, starting at the FROM location. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.9.4 Impact of Generate Action on CCIDs/Comments

If you **do not** use the COPYBACK option when you specify a CCID and comment in a GENERATE request, Endevor:

- Sets the last action CCID/comment.
- Sets the generate and component delta CCIDs/comments.

If you **do** use the COPYBACK option when you specify a CCID and comment in a GENERATE request, Endevor:

- Sets the last action CCID/comment.
- Sets the source and source delta CCIDs/comments to their Stage 2 value.
- Sets the generate and component delta CCIDs/comments.

6.9.5 Generating Elements Without Copyback

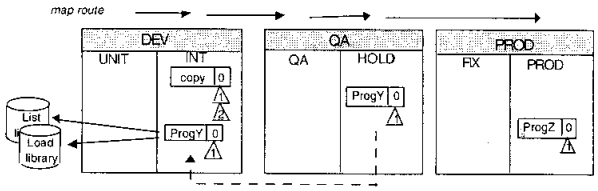
When you generate an element without copyback, Endevor:

1. Checks whether the element is signed out to you.
2. Checks the element type definition for a source output library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y** (on the Type Definition panel), Endevor expands INCLUDE statements in the source.
3. Determines the processor group (see Appendix A, "Actions and Processor Groups," for information). It then executes the generate processor in that group if one has been specified.
4. Updates the information in the Master Control File after the generate processor has been run for the element.

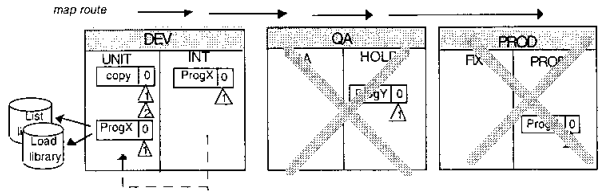
6.9.6 Generating Elements with Copyback

Generate elements with copyback when you have changed an element, for example a copybook, used by multiple programs, and you want to recompile the affected programs. In the example that follows, you have modified the copybook Copy, which is shared by programs PROGX, PROGY, and PROGZ. When you generate the elements PROGX, PROGY, and PROGZ with copyback, the following happens:

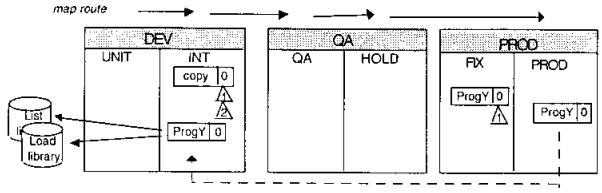
1. Endevor searches beyond the current stage, in every stage in the current and subsequent environments in the map. If it finds the element, Endevor copies the current version of the element to the target stage, along with the processor group name last used for the element.



Note: If you want to restrict Endevor's search to the current environment, generate the element with BUILD USING MAP = N. In the case below, you cannot generate the elements PROGY and PROGZ because they are outside the current environment.



2. If Endevor finds the element at a stage not included in the map, it issues a warning message, then continues to search for an element in a stage that is included in the map. In the example below, Endevor warns you that a version of PROGY is located outside the map route.



3. Endevor updates the Master Control File (MCF).

   The value specified for Signout Fetch (SOFETCH) in the Endevor Defaults Table will effect how the MCF will be updated for the element copied back (fetched).

   If Signout Upon Fetch is in effect, the element will be signed out to you unless it is already signed out to someone else.

If Signout Upon Fetch is not in effect, the element will not be signed out to you.

See the section Endevor Defaults Table in the *Installation Guide* for more information about SOFETCH.

4. Endevor then does the following:
   - Checks the element type definition for a source output library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y** (on the Type Definition panel), Endevor expands INCLUDE statements in the source.
   - Determines the processor group (see Appendix A, "Actions and Processor Groups," for information). It then executes the generate processor in that group if one has been specified.
5. After the generate processor has been run for the element, Endevor updates the information in the Master Control File.

6.10 List Element Action

6.10.1 Before You Begin

Before you use the List action for the first time, review the following information:

- Use--Use the LIST ELEMENT action to create lists of information about selected elements. You can also list elements from an archive data set. See the discussion of the List statement in the *SCL Reference Guide*.

  You can also create lists of information about library members, as described in List Member Action.

  Additional options are available with the LIST ELEMENT action. However, these options must be entered using the EDIT option (option **2** on the Batch Options Menu) after the request has been generated; they cannot be entered directly on the List Element Action panel. For more information, see the discussion of the List statement in the *SCL Reference Guide*.

- Availability--You can list element information in batch and in packages.

- Specification--Use the List Element Action panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.10.2 List Element Action Panel

The List Element Action panel is shown next.

```
----------------------------  LIST ELEMENT ACTION  --------------------------
OPTION  ===>
                              ELEMENT DISPLAY OPTIONS:
   blank - Element list          S - Summary   B - Browse    H - History
   L - LIST element action       M - Master    C - Changes

FROM Endevor:                    LIST OPTIONS:
  ENVIRONMENT ===> DOC                DISPLAY LIST      ===> Y (Y/N)
  SYSTEM      ===> FINANCE            WHERE CCID EQ     ===>
  SUBSYSTEM   ===> *                  WHERE PROC GRP EQ ===>
  ELEMENT     ===>                    BUILD USING MAP   ===> N (Y/N)
  TYPE        ===> *
  STAGE       ===>          A - TEST         B - PROD

TEXT STRING:
   ===>

SCAN COLUMNS:
  START ===>     END ===>
  SHOW TEXT ===> N (Y/N)
ACTION TO BE GENERATED WHEN LIST IS CREATED ===>
WRITE LIST TO OUTPUT DATA SET ===> N (Y/N)
WHERE COMPONENT EQ ===>
```

Note: Specifying wildcards as part of the LIST action's search criteria increases the action's resource usage. When you specify the criteria, be as specific as possible. See the section Name Masking for more information on wildcards.

6.10.3 Fields

The List Element Action panel fields are described next:

6.10.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use This Option	To...
Blank	Display a selection list This only applies when DISPLAY LIST = Y.
L	Generate an action request to list the element(s) identified on the screen.
S, M, B, C, H	Display one of the listed element information panels.

6.10.3.2 From Endevor Fields

Use these fields to define the element you want to list or display.

Field	Description
Environment	Name of the current environment.
System	System associated with the element(s) to be listed.
Subsystem	Subsystem associated with the element(s) to be listed.
Element	Element(s) about which you want to list information.
Type	Type associated with the element(s) to be listed.
Stage	ID of the current stage.

6.10.3.3 List Options Fields

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y**.

Field	Description
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map, beginning in the FROM location, when building a list of elements. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.10.3.4 Text String Field

Applicable when you want to list only those elements that contain a particular character string. Indicate the text string for which you want to search (1-70 characters). Enclose the string in quotes if it contains blanks or special characters.

If you supply a text string, Endevor only generates action requests for those elements that contain the string. If you also specify SCAN COLUMNS, the search is restricted to the columns indicated.

By default, the case of the search argument must match exactly in order for a match to be found. If a site wishes to implement mono-case text searches, the mono-case search option must be turned on in the options table (ENCOPTBL). Please refer to appendix F in the *Installation Guide* for more information regarding this option.

6.10.3.5 Scan Columns Fields

These fields are applicable when you supply a text string.

Field	Description
Scan Columns: Start/End	Range of columns to be searched for the text string, specified in terms of a start and end column. You must enter both a starting and ending column.
Show Text	Applicable when you specify a text string in the TEXT STRING field. Indicates whether you want any lines containing the specified text string to print on the execution report. Acceptable values are **Y** (yes) or **N** (no). Default is **N**.

6.10.3.6 Action To Be Generated When List Is Created Field

Type of action you want the LIST requests to generate. Specify any of the following actions: &&Action, Add, Archive, Copy, Delete, Generate, List, Move, Print, Restore, Retrieve, Signin, Transfer, Update. The default is &&ACTION, which is used when you want to specify the action at run time and not hard-code a specific action in the list.

6.10.3.7 Write List to Output Data Set Field

Indicates whether the element list is to be written to a data set: **Y** (yes) or **N** (no). The default is **N**.

6.10.3.8 Where Component Eq Field

A component can be specified in this field to limit the selection list to only those elements containing the component(s) indicated.

6.10.4 Element Selection List for the List Element Action

Endevor returns an Element Selection List if you do not specify the element, type, stage, or option you want, DISPLAY LIST = Y, and WRITE LIST TO OUTPUT DATA SET = N. For more information on Element Selection Lists, see Chapter 4, "Foreground and Batch Processing."

Endevor supports the Locate command on Element and Member Selection Lists.

Note: Element Selection Lists are sorted alphabetically by element name, in map-sequence order. Whenever possible, you should fully qualify a system when requesting the selection list. If you cannot fully specify a system, be sure to look carefully at the Endevor location (environment/stage) and classification (system/subsystem/type) information associated with a located element to make sure it is the element for which you are looking.

To sort the selection lists by a different column, use either the ESORT or the EONLY command. These commands are documented fully in the section Selections Lists in Chapter 4, “Foreground and Batch Processing”.

6.10.5 List Output Panel

If you specify WRITE LIST TO OUTPUT DATA SET = Y on the List Element Action panel, Endevor returns the List Output panel.

```
------------------------------  LIST OUTPUT  ------------------------------
OPTION  ===>
Specify data set where output of LIST will be placed, then press ENTER
TO ISPF LIBRARY:
   PROJECT ===> BST
   LIBRARY ===> C1DEMO
   TYPE    ===> COPYLIB1
   MEMBER  ===>
OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===> 'ZSXBAP1.T.PDS(LISTOUT)'
```

Leave the OPTION field blank on this panel. Use the TO ISPF LIBRARY fields or the OTHER PARTITIONED DATA SET fields to specify the library for the list element output.

6.11 List Member Action

6.11.1 Before You Begin

Before you use the List Member action the first time, review the following information:

- Use--Use the LIST MEMBER action to create lists of members from a library or to browse a member online.

  For information on creating lists for elements, see the previous section.

  Additional options are available with the LIST MEMBER action. However, these options must be entered using the EDIT option (option **2** on the Batch Options Menu) after the request has been generated; they cannot be entered directly on the List Members panel. For more information, see the discussion of the List statement in the *SCL Reference Guide*.

- Availability--The LIST MEMBER action is available in batch and in packages.

- Specification--Use the List Members panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.11.2 List Members Panel

The List Members panel is shown next:

```
-------------------------------  LIST MEMBERS  ----------------------------
OPTION  ===>
   blank - Member list      B - Browse member       L - LIST action
FROM ISPF LIBRARY:               LIST OPTIONS:
   PROJECT ===> BST                 DISPLAY LIST  ===> Y
   LIBRARY ===> C1DEMO
   TYPE    ===> COPYLIB1
   MEMBER  ===>            THRU MEMBER ===>
FROM OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
TEXT STRING:
   ===>
SCAN COLUMNS:
  START ===>     END ===>
  SHOW TEXT ===> N (Y/N)
ACTION TO BE GENERATED WHEN LIST IS CREATED ===>
WRITE LIST TO OUTPUT DATA SET ===> N (Y/N)
```

6.11.3 Fields

The List Members panel fields are described next:

6.11.3.1 Option Field

Use the OPTION field to specify the processing you want to perform.

Use This Option	To...
Blank	Display a Member Selection List for the library named. This only applies when DISPLAY LIST = Y.
B	Return an ISPF Browse panel showing the contents of a specific library member.
L	Generate a request to list the member specified.

6.11.3.2 From ISPF Library Fields

Use these fields to specify the library in which a member(s) resides, as well as the member, or range of members, about which you want to list information. If you specify option **B** or **L**, you must provide a single member name.

6.11.3.3 From Other Partitioned or Sequential Data Set Field

As an alternative to the FROM ISPF LIBRARY fields, enter the data set name, and member if the data set is a library, in '*data set(member name)* ' format. To provide a range of members when using this format, specify the end of the range in the THRU MEMBER field.

6.11.3.4 List Options Field

The value in the display list field indicates whether you want to use list panels when requesting this action: **Y** (yes) or **N** (no). The default is **Y**.

6.11.3.5 Text String Field

Applicable when you want to list only those members that contain a particular character string. Indicate the text string for which you want to search (1-70 characters). Enclose the string in quotes if it contains blanks or special characters.

If you supply a text string, Endevor only generates action requests for those members that contain the string. If you also specify SCAN COLUMNS, the search is restricted to the columns indicated.

By default, the case of the search argument must match exactly in order for a match to be found. If a site wishes to implement mono-case text searches, the mono-case

search option must be turned on in the options table (ENCOPTBL). Please refer to Appendix F in the *Installation Guide* for more information regarding this option.

6.11.3.6 Scan Columns Fields

These fields are applicable when you supply a text string.

Field	Description
Scan Columns: Start/End	Range of columns to be searched for the text string, specified in terms of a start and end column. You must enter both a starting and ending column.
Show Text	Applicable when you specify a text string in the text string field. Indicates whether you want any lines containing the specified text string to print on the execution report. Acceptable values are **Y** (yes) or **N** (no). Default is **N**.

6.11.3.7 Action To Be Generated When List Is Created Field

Type of action you want the LIST requests to generate. Specify any of the following actions: &&Action, Add, Archive, Copy, Delete, Generate, List, Move, Print, Restore, Retrieve, Signin, Transfer, Update. The default is &&ACTION.

6.11.3.8 Write List to Output Data Set Field

Indicate whether or not the member list is to be written to a data set: **Y** (yes) or **N** (no). The default is **N**.

6.11.4 Member Selection List Panel for the List Member Action Field

If DISPLAY LIST= **N**, and WRITE LIST TO OUTPUT DATA SET = Y on the List Members panel, Endevor returns the Member Selection List. Endevor generates the LIST action request(s) when you press ENTER, regardless of whether you qualify the member name.

If DISPLAY LIST= **Y** and you leave the member name blank or supply a name mask, Endevor returns a Member Selection List. The list is limited according to any member name mask specified on the List Members panel (see the section Name Masking for more information on specifying a mask character). Use the Member Selection List to select the member(s) you want to list or browse.

Note: Endevor supports the Locate command on Member Selection Lists.

```
LIST ----------------------  MEMBER SELECTION LIST  --------  ROW 22 OF 161
COMMAND INPUT ===>                                          SCROLL ===> CSR
FROM  Data set:  BST.NDVRC1.JCLLIB
                 | - - - - - - - - - FOOTPRINT - - - - - - - - - - - - - |
  MEMBER         SYSTEM   SUBSYS    ELEMENT    TYPE     VV.LL  DATE   TIME
L CONDORRT       CNTLI201 INTERNAL  CONDORRT   TABLESI  01.00 27JUL01 16:14
  DOWNLD2
  DOWNLOAD
  DOWNMACS
  D1ASMX
  D1LNKX
  D2ASMX
  D2LNKX
  FIX
  FOO
  FOOTPRNT
  FOO1
  FOO2
  FOO3
  G1ABEND
  G1ASMX         NDVR250  PROCESS   G1ASMX     PROCESS  01.00 02JUN01 11:27
  G1ASQL
```

The Member Selection List shows the library being processed (FROM data set). Each member in the library is listed in the left-hand column, and the footprint information for that member (if any) is listed to the right of the member name. Footprint information includes the system and subsystem for the associated Endevor element, the element name itself, the element type for the element, the version and level of the element associated with this member, and the date/time the footprint was written.

On the Member Selection List panel, you can:

- Select one or more members to be listed by placing an **L** to the far left of each member name.
- Select one or more members to be browsed by placing a **B** to the far left of each member name.
- Submit the LIST MEMBER action by pressing ENTER.

6.11.5 List Output Panel

If you specify WRITE LIST TO OUTPUT DATA SET = **Y** on the List Members panel, Endevor returns the List Output panel.

```
----------------------------  LIST OUTPUT  -------------------------------
OPTION  ===>
Specify data set where output of LIST will be placed, then press ENTER
TO ISPF LIBRARY:
   PROJECT ===> BST
   LIBRARY ===> C1DEMO
   TYPE    ===> COPYLIB1
   MEMBER  ===>
OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===> 'ZSXBAP1.T.PDS(LISTOUT)'
```

Leave the OPTION field blank, and use the TO ISPF LIBRARY or OTHER PARTITIONED DATA SET fields to specify the library for the list element output.

6.11.6 List Processing

When you request a LIST action, Endevor:

1. Builds a list of elements or members that match the element or member name criteria you provide.
2. Scans this list for elements or members that meet the WHERE criteria specified in the remainder of the LIST request. Where criteria include CCID, text strings, generate or archive date, processor group, or components (if you have ACM).
3. If you specify DETAIL REPORT = Y, Endevor lists in the Execution Report each element or member it searches, whether or not that element or member matches the selection criteria.
4. Creates, for each element or member that meets the criteria specified, an action request in the TO location data set. If you have not designated a different member name for the list in the TO location data set, Endevor assigns it the member name "TEMPNAME."

   The type of action request created is determined by the information you enter for the LIST request, for example, ADD, UPDATE, MOVE, etc. As an alternative to requesting a specific action at this time, you can enter &&ACTION, which allows you to substitute a desired (or required) action when you execute the requests at a later date.

6.12 Move Elements Action

6.12.1 Before You Begin

Before you use the Move action for the first time, review the following information:

- Use--The MOVE action moves elements from one inventory location (environment, stage) to the next location on a map route. You can move elements either with history or without history. You can only move elements from one environment to another if the elements start in Stage 2 of the source environment. So, for example, to move an element from Stage 1 of the Development environment into Stage 1 of the QA environment, you have to move the element to Stage 2 in Development and then move it into Stage 1 in QA.
- Availability--You can move elements in foreground, batch, and in packages.
- Specification--Use the Move Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

  For instructions on accessing this panel in foreground, batch, and when building a package, see Chapter 4, "Foreground and Batch Processing."

6.12.2 Move Elements Panel

The Move Elements panel is shown next.

```
------------------------------  MOVE ELEMENTS  ----------------------------
OPTION  ===>
                              ELEMENT DISPLAY OPTIONS:
   blank - Element list          S - Summary   B - Browse   H - History
   0 - Move element              M - Master    C - Changes
FROM Endevor:                     ACTION OPTIONS:
  ENVIRONMENT ===> BST                 CCID                   ===>
  SYSTEM      ===> NDVR250             SYNC                   ===> N (Y/N)
  SUBSYSTEM   ===> INTERNAL            WITH HISTORY           ===> N (Y/N)
  ELEMENT     ===>                     RETAIN SIGNOUT         ===> N (Y/N)
  TYPE        ===> ISPPE               SIGNOUT TO             ===>
  STAGE       ===> D                   ACKNOWLEDGE ELM JUMP   ===> N (Y/N)
         D - CSTAGE   P - CPROD        DELETE 'FROM' ELEMENT  ===> Y (Y/N
  COMMENT     ===>
                                     LIST OPTIONS:
                                        DISPLAY LIST           ===> Y (Y/N)
                                        WHERE CCID EQ          ===>
                                        WHERE PROC GRP EQ      ===>
                                        BUILD USING MAP        ===> N (Y/N)
```

6.12.3 Fields

The Move Elements panel fields are described next:

6.12.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use This Option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
O	Move the element from Stage 1 to Stage 2.
S, M, B, C, H	Display one of the listed information panels.

6.12.3.2 From Endevor Fields

Use these fields to define the element you want to move.

Field	Description
Environment	The name of the source environment.
System	The system associated with the element(s) to be moved.
Subsystem	The subsystem associated with the element(s) to be moved.
Element	The name of the elements to be moved.
Type	The name of the type associated with the element to be moved.
Stage	The ID of the source stage.

6.12.3.3 Comment Field

Use the COMMENT field to provide a 1- to 40-character comment explaining the action.

Action Options Fields

Field	Description
CCID	CCID associated with the move request.

Field	Description
Sync	Indicates whether you want the MOVE action performed when the base level of the element at the source location is different from the current level of the element at the target: **Y** (yes) or **N** (no). Default is **N**. When you specify **Y**, Endevor creates a "sync" level at the target that reflects the differences between the base level at the source location and the current level at the target. The move fails if these levels are different and you have specified SYNC = N. You must specify SYNC = Y when moving to the location where the out-of-sync condition exists.
With History	Indicates whether you want to move the element with history. Default is **N**, move the element without history. When you move the element without history Endevor searches through the element levels at the source location to find a matching level at the target location. Endevor then compares the two and creates a new level at the target location that reflects the differences.
Retain Signout	Determines whether Endevor retains the signout associated with an element at the source location when it is moved to the target location. Acceptable values are: ■ **Y--** Retain the source location signout at the target location. ■ **N**--Default. Do not retain the source location signout at the target location.
Signout To	Allows you to sign the element out to another user at the target location. Do so by typing the TSO user ID of the person to whom you want to sign out the element in this field. If RETAIN SIGNOUT = Y, you cannot use this option.

Field	Description
Acknowledge Elm Jump	Endevor uses this field when it finds an element being moved at a non-mapped stage between the FROM and TO locations of the move. When this occurs, Endevor checks the system definition. If the system's REQ ELM JUMP ACKNOWLEDGEMENT = Y, then you must type **Y** in this field to move elements. Otherwise, the value in this field can be either **Y** or **N**. Whenever Endevor jumps an element during a move, it issues a message informing you of this fact.
Delete from Element	Indicates whether you want Endevor to delete the element(s) at the source location after moving them. Acceptable values are: ■ **Y**--Default. Delete the element(s). ■ **N**--Do not delete the element(s) **Caution!** If you specify option **N** to leave the element at the source location, then you must specify SYNC = Y for any subsequent moves of this element.

6.12.3.4 List Options Fields

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y**.
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map when building a list of elements to be moved, starting at the FROM location. ***Caution!*** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.12.4 Impact of Move Action on CCIDs/Comments

The impact of the MOVE action on CCIDs and comments depends on whether you are using the WITH HISTORY option.

When you specify a CCID and comment and WITH HISTORY = **N**, Endevor:

- Sets the last action CCID/comment.
- Sets source & generate CCID/comments with their Stage 1 value.
- Sets source delta and component delta CCID/comments with their last Stage 1 value.
- Clears the retrieve CCID/comment.

When you specify a CCID and comment and WITH HISTORY = Y, Endevor:

- Sets the last action CCID/comment.
- Sets source & generate CCID/comments with their Stage 1 value.
- Carries existing source and source delta CCID/comments with their respective delta levels.
- Clears the retrieve CCID/comment.

6.12.5 Moves Using a Generate Processor

Move processors can be used to:

- Copy the outputs (load modules and listings) from the source to the target stage.
- Recreate load modules at the target stage. This occurs when a generate processor is used as a move processor. For more information, see the *Extended Processors Guide*.

  If you want to use a generate processor as a move processor, be sure to specify **G** in the PROCESSOR TO USE FOR THE MOVE ACTION field on the definition panel for the appropriate processor group.

Note: Do not recreate load modules at the target stage by coding a compile and link step in a move processor. This causes the load module footprint to become out of sync with Master Control File information for the element. Instead, use the generate processor at the target stage, which will both execute the compile and link and update the element's Master Control File.

6.12.6 Moves Using Delete from Element Option

When you move an element with DELETE FROM ELEMENT = N, Endevor leaves a copy of the element at the source location of the move. Consider using this option only when you do not plan to ever move the element from the source location.

If you do move the element that remains at the source location, the Move fails unless you specify SYNC = Y.

6.12.7 Move Processing

When you move an element, Endevor performs as many of the following processes as necessary:

- Source management. This involves the actual move of the element and MCF updates.
- Processor management. This involves executing, at the target location, either the Move processor of the source processor group or the Generate processor at the target processor group (based on the processor group setting at the source location). Processing may include writing to a source output library and to the appropriate processor output libraries.
- Delete processing. This involves executing the Delete processor and deleting the element at the source location of the move.

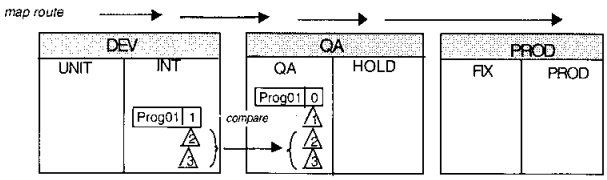
6.12.8 Moving Elements With History

When you move an element with history, Endevor:

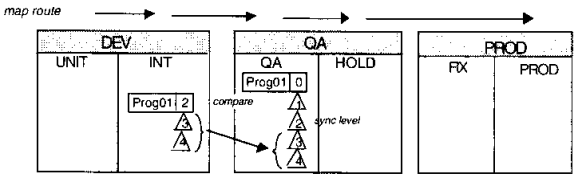
1. Checks the following and issues messages as necessary:
   - Does the element exist at the source location?
   - Does the element exist at the target location?
   - Does the acknowledge element jump option apply?
   - Is source management necessary?
   - Is processor management necessary (restart situation)?
2. Performs source management by moving the element to the target stage. The processing that Endevor performs depends on whether the element exists at the TO location.
   a. If the element does not exist at the target, Endevor searches the map for subsequent occurrences of the element. If it finds the element farther along the map, it compares the base level of the element to be moved with the current level of the subsequent element. If the two are in synch, Endevor copies back (or fetches) the element from up the map to the target location with all delta levels intact. If the two are not in synch, Endevor issues a warning message and does not perform the copy.
   b. If Endevor finds the element at a stage not included in the map, it issues a warning message, then continues to search for the element in a stage that is included in the map.
   c. If the element exists at the target location, Endevor performs level-matching. During level-matching, Endevor determines the sync point of the source and target elements by comparing the level time stamp of the base level of the

source element with the current level of the target element. If the two time stamps do not match, Endevor checks the next oldest level of the source element, and so on.

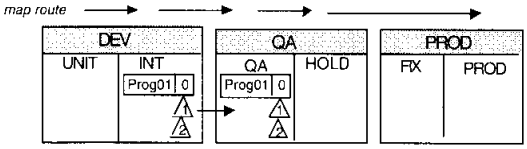
- If the sync point is found, Endevor moves the element from the FROM location to the TO location, appending the FROM location delta levels after the sync-point element.



- If the two levels are different, and SYNCHRONIZE =Y, Endevor first creates a sync level at the target reflecting the differences between the base level of the FROM element and the target, then moves the element to the TO location and appends the FROM location delta levels to the target.



d. If the element does not exist at the target, Endevor moves the element from the source to the target location with all delta levels intact.



3. Completes source management after the element base and change levels have been moved by updating the Master Control File (MCF) to reflect the move.

   Note that the value specified for Signout Upon Fetch (the SOFETCH parameter) in the Endevor Defaults table will effect how the MCF for the element copied back will be updated.

   If Signout Upon Fetch is in effect, the element will be signed out to you unless it is already signed out to someone else.

   If Signout Upon Fetch is not in effect, the element will not be signed out to you.

   See the *Installation Guide* for more information about Signout Upon Fetch (the SOFETCH parameter).

4. Performs processor management by writing a copy of the element to a source output library, if one is defined for the associated element type at the target

location. If EXPAND INCLUDES = Y (on the Type Definition panel), Endevor expands INCLUDE statements in the source.

5. Completes processor management by determining the processor group last associated with the element (see Appendix A, "Actions and Processor Groups," for information), then executes the move or generate processor in that group if one has been specified . After the processor has been run for the element, Endevor updates processor information in the Master Control file.
6. If DELETE FROM ELEMENT = Y, Endevor executes standard delete processing for the element. For more information, see Delete Action.

6.12.9 Moving Elements Without History

To move without history, specify WITH HISTORY = **N** on the MOVE request. Endevor executes the request and attempts to find a sync level between the source and target elements beginning with the first level at the source and working forward through the deltas. If Endevor finds a sync level, it compares the two and creates a new level at the target that reflects the differences. If Endevor cannot find a sync level and you specify SYNC = **N**, Endevor issues a message indicating that the elements are "out of sync" and the MOVE action terminates. If Endevor cannot find a sync level and you specify SYNC = **Y**, Endevor issues an out of sync message. Endevor then compares the last level of the source and last level of the target, and creates a new level at the target that reflects the differences.

For MOVE action batch syntax, see the *SCL Reference Guide*.

6.12.10 Restarting Moves

If a MOVE action fails, first respond to the error condition, then resubmit the MOVE request. When you restart a MOVE action:

- After a source management failure, Endevor performs source management, processor management, and delete processing.
- After a processor management failure, Endevor bypasses source management, and performs just processor management and delete processing.
- After a delete failure, Endevor bypasses source management and processor management, and performs just delete processing.

6.13 Print Elements Action

6.13.1 Overview

You can print information about elements and about members. This section describes how to print element information. The next section, Print Members Action, describes how to print member information. If you select this option from the Foreground Options Menu, Endevor saves the appropriate SCL in a temporary data set and, when you exit your Endevor session, gives you the option of printing the information.

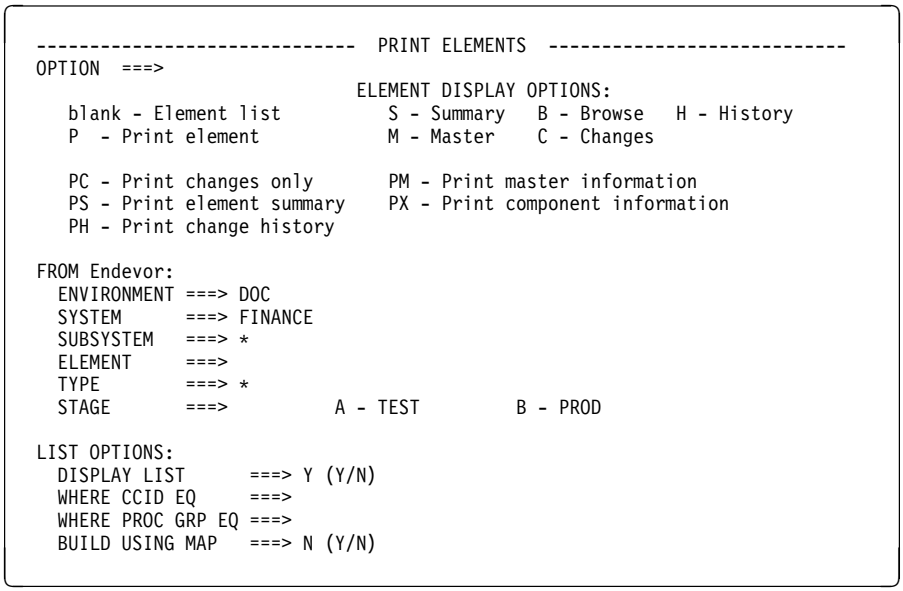
6.13.2 Before You Begin

Before you use the Print Elements action the first time, review the following information:

- Use--The PRINT ELEMENT action prints information about selected elements. The following types of element information can be requested:
  - **Browse--** (default) prints all statements in the specified level of the element, as well as the level at which each statement was inserted.
  - **Changes--** displays all inserts and deletes made to the element at the level specified.
  - **History--** prints all statements in all levels of the element.
  - **Summary--** prints one line of summary information for each level.
  - **Master--** prints Master Control File information for the element.
- Availability--The PRINT ELEMENTS action is available in foreground and batch.
- Specification--Use the Print Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.13.3 Print Elements Panel

The Print Elements panel is shown next.



6.13.4 Fields

The Print Elements panel fields are described next:

6.13.4.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use this option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
P	Print a *browse* report showing all statements in the current level of the element, and the level at which each statement was inserted. This report corresponds to display option **B**.
PC	Print a *changes* report showing all inserts and deletions made to the element as of the current level. This report corresponds to display option **C**.
PS	Print a *summary* report showing all levels of the element. This report corresponds to display option **S**.
PM	Print an *element master* report showing element information stored in the Master Control File. This report corresponds to display option **M**.
PH	Print a *history* report showing all statements in all levels of the element, from the base level through the current level. This report corresponds to display option **H**.

Use this option	To...
S, M, B, C, H	Display one of the listed element information panels.

6.13.4.2 From Endevor Fields

Use these fields to define the element you want to print or display.

Field	Description
Environment	Name of the current environment.
System	System associated with the element about which information is to be printed.
Subsystem	Subsystem associated with the element about which information is to be printed.
Element	Element(s) about which you want to print information.
Type	Type associated with the element about which information is to be printed.
Stage	ID of the current stage.

6.13.4.3 List Option Fields

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y**.
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map when building a list of elements for printing, starting at the from location. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.13.5 Considerations

When you use the Print Elements action, you need to consider the following items:

- Printing to a Data Set--If you want to direct print output to a data set, see the *SCL Reference Guide* for the data set requirements.
- Submitting Print Jobs in Foreground--Print requests are queued to a temporary data set during each Endevor session. When you terminate the session (to return to ISPF or TSO), Endevor displays a panel asking you whether you want to submit a job to print all the requests made during the session.
- Printing Information about Previous Levels--By default, Endevor prints the current level of the element. If you want to print a level that precedes the current level, first use option **S** to display a Summary of Levels for the element, then select the level you want from that display.

6.14 Print Members Action

6.14.1 Before You Begin

Before you use the Print Members action the first time, review the following information:

- Use--The PRINT MEMBERS action allows you to print a member from a library or to browse a member online.
- Availability--The PRINT MEMBERS action is available in batch and in packages.
- Specification--Use the Print Members panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.14.2 Print Members Panel

The Print Members panel is shown next.

```
------------------------------  PRINT MEMBERS  ----------------------------
OPTION  ===>
  Blank - Member list      B - Browse member      P - Print member
FROM ISPF LIBRARY:
   PROJECT ===> BST
   LIBRARY ===> NDVRC1
   TYPE    ===> JCLLIB
   MEMBER  ===>            THRU MEMBER ===>
FROM OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
LIST OPTIONS:
   DISPLAY LIST  ===> Y
```

6.14.3 Fields

The Print Members panel fields are described next:

6.14.3.1 Option Field

Use this field to specify the processing you want to perform.

Use this option	To...
Blank	Display a member list for the library named. This applies only when DISPLAY LIST = Y.
B	Return an ISPF Browse panel showing the contents of a specific library member.
P	Generate the SCL to print the member specified.

6.14.3.2 From ISPF Library Fields

Use these fields to specify the library in which a member(s) resides, as well as the member, or range of members, about which you want to print information. If you specify option **B** or **P**, you must provide a single member name.

6.14.3.3 From Other Partitioned or Sequential Data Set Field

As an alternative to the FROM ISPF LIBRARY fields, enter the data set name, and member if the data set is a library, in '*data set(member name)* ' format. To provide a range of members when using this format, specify the end of the range in the THRU MEMBER field.

6.14.3.4 List Options Field

Indicates whether you want to use selection lists when requesting this action: **Y** (yes) or **N** (no). The default is **Y**.

6.14.4 Member Selection List for the Print Members Panel

The Member Selection List appears when you do not fully specify the library members that you want to print or browse and DISPLAY LIST = **Y.**

Note: Endevor supports the ISPF Locate command on Member Selection Lists.

```
BROWSE/PRINT ------------  MEMBER SELECTION LIST  -------  ROW 22 OF 161
COMMAND INPUT ===>                                        SCROLL ===> CSR
FROM  Data set:  BST.NDVRC1.JCLLIB
                 | - - - - - - - - - - - FOOTPRINT - - - - - - - - - - - - |
  MEMBER           SYSTEM   SUBSYS    ELEMENT    TYPE     VV.LL  DATE   TIME
p CONDORRT         CNTLI201 INTERNAL  CONDORRT   TABLESI  01.00 27JUL01 16:14
  DOWNLD2
  DOWNLOAD
  DOWNMACS
  D1ASMX
  D1LNKX
  D2ASMX
  D2LNKX
  FIX
  FOO
  FOOTPRNT
  FOO1
  FOO2
  FOO3
  G1ABEND
```

The Member Selection List shows the library being processed (FROM DATA SET). It lists each member in the library in the left-hand column, and the footprint information for that member (if any) to the right.

Using this panel, you can select one or more members to be:

- Printed, by placing a **P** to the left of each member you want.

- Browsed, by placing a **B** to the left of each member you want.

If you request print (**P**), Endevor writes the member to a temporary data set, and returns you to the selection list with the message **WRITTEN* next to the selected member.

```
BROWSE/PRINT --------------  MEMBER SELECTION LIST  ----------  ROW 19 OF 161
COMMAND INPUT ===>                                            SCROLL ===>
FROM  Data set:  BST.NDVRC1.JCLLIB
                 | - - - - - - - - - - FOOTPRINT - - - - - - - - - - - - - - |
  MEMBER         SYSTEM   SUBSYS    ELEMENT    TYPE     VV.LL  DATE      TIME
  COB1
  COMPJCL
  COMPSKEL
  CONDORRT *WRITTEN CNTLI201 INTERNAL  CONDORRT   TABLESI  01.00 27JUL01 16:14
  DOWNLD2
  DOWNLOAD
  DOWNMACS
  D1ASMX
  D1LNKX
  D2ASMX
  D2LNKX
  FIX
  FOO
  FOOTPRNT
  FOO1
  FOO2
  FOO3
  G1ABEND
```

If you request a browse (**B**), Endevor returns a standard ISPF Browse panel for the member (as shown below). Press PF3 when you finish browsing the member, to return to the Member Selection List.

```
BROWSE -- BST.NDVRC1.JCLLIB(CONDORRT) ----------- LINE 00000000 COL 001 080
COMMAND ===>                                          SCROLL ===> CSR
****************************** TOP OF DATA  ****************************
         CONSDEF TYPE=START,TABLE=RESOURCE
         CONSDEF TYPE=RESOURCE,RNAME=CONEX$,SYSDEF=(($,$,AURMDPSZ))
         CONSDEF TYPE=RESOURCE,GROUP=GOLS,SYSDEF=((MMS,GOLS$,ARUDP))
         CONSDEF TYPE=RESOURCE,RNAME=YGQ$,GROUP=GOLS
         CONSDEF TYPE=RESOURCE,RNAME=YG$,SYSDEF=(($,$,ARUDP))
         CONSDEF TYPE=END,TABLE=RESOURCE
****************************** BOTTOM OF DATA ****************************
```

6.15 Restore Elements Action

6.15.1 Before You Begin

Before you use the Restore Elements action for the first time, review the following information:

- Use--Use the RESTORE action to restore an element from an archive data set back to Endevor.
- Availability--You can only restore elements in batch.
- Specification--For the RESTORE syntax, see the *SCL Reference Guide*.

6.15.2 Restore Processing

The processing sequence for the RESTORE action follows:

1. Determines whether the element is present in the stage indicated. If the element exists in that stage, the RESTORE action fails.
2. Restores the element, if it is not present, to the specified location (environment, stage, system, subsystem, and type). This includes:
   - Restoring all base and delta levels for the element.
   - Copying the element definition to the Master Control File.
   - Restoring component lists, if present.

     If you use the NEW VERSION option, Endevor assigns the new version number to the restored element. Otherwise, the element retains its version number from the file.
3. Updates the Master Control File.
4. Continues based on the value in the BYPASS GENERATE PROCESSOR field. If the value in this field is **Y**, Endevor does not generate the element. If the value in this field is **N,** Endevor:
   - Determines the processor group to use (see Appendix A, "Actions and Processor Groups," for information). It then executes the generate processor in that group if one has been specified.

     Note: If you are performing multiple element restores, all of the elements will be restored before the generate processors are executed.
   - Reads the type definition for a source output library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y**, Endevor expands INCLUDE statements in the source.

     After the generate processor has been run for the element, Endevor updates the information in the Master Control File.

5. Updates the Master Control File after the RESTORE action is successfully completed.

6.16 Retrieve Elements Action

6.16.1 Before You Begin

Before you use the Retrieve Elements action the first time, review the following information:

- Use--Use the RETRIEVE action to copy an element from an Endevor location to a user data set.
- Availability--You can retrieve elements in foreground, batch, and in packages.
- Specification--Use the Retrieve Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

  For instructions on accessing this panel in foreground, batch, and when building a package, see Chapter 4, "Foreground and Batch Processing."

6.16.2 Retrieve Elements Panel

The Retrieve Elements panel is shown next.

```
------------------------------  RETRIEVE ELEMENTS  --------------------------
OPTION  ===>
                             ELEMENT DISPLAY OPTIONS:
   blank - Element list         S - Summary   B - Browse    H - History
   R - Retrieve element         M - Master    C - Changes

FROM Endevor:                   ACTION OPTIONS:
  ENVIRONMENT ===> DOC               CCID            ===>
  SYSTEM      ===> FINANCE           EXPAND INCLUDES  ===> N (Y/N)
  SUBSYSTEM   ===> *                 SIGNOUT ELEMENT  ===> Y (Y/N)
  ELEMENT     ===>                   OVERRIDE SIGNOUT ===> N (Y/N)
  TYPE        ===> *                 REPLACE MEMBER   ===> N (Y/N)
  STAGE       ===>      D - CSTAGE   P - CPROD
  COMMENT     ===>

TO ISPF LIBRARY:                  LIST OPTIONS:
   PROJECT ===> BST                  DISPLAY LIST      ===> Y (Y/N)
   LIBRARY ===> C1DEMO               WHERE CCID EQ     ===>
   TYPE    ===> CNTRL                WHERE PROC GRP EQ ===>
   MEMBER  ===>                      BUILD USING MAP   ===> N (Y/N)
                                     FIRST FOUND       ===> Y (Y/N)
TO OTHER PARTITIONED OR SEQUENTIAL DATA SET:
   DATA SET NAME ===>
```

6.16.3 Fields

The Retrieve Elements panel fields are described next:

6.16.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use This Option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
R	Retrieve an element.
S	Display the Summary of Levels panel. You can use this panel to retrieve a prior level.
M, B, C, H	Display one of the listed element information panels.

6.16.3.2 From Endevor Fields

Use these fields to define the element you want to retrieve.

Field	Description
Environment	Name of the current environment.
System	The system associated with the element(s) to be retrieved.
Subsystem	The subsystem associated with the element(s) to be retrieved.
Element	The name of the element(s) you want to retrieve. You can specify: ■ A single element name. You can either leave the MEMBER field blank to use the element name as the member name, or provide a different member name. ■ A name mask. You must leave the MEMBER field blank.
Type	Name of the type associated with the element(s) to be retrieved.
Stage	ID of the current stage. Leave this field blank to include both stages of the current environment in a list of elements.

6.16.3.3 Comment Field

Use the COMMENT field to provide a 1- to 40-character comment explaining the action

6.16.3.4 Action Options Fields

Use the ACTION OPTIONS fields to further define your action request.

Field	Description
CCID	CCID associated with the request.
Expand Includes	Tells Endevor whether to expand INCLUDE statements in the retrieved element. ■ **Y**--Expand INCLUDE statements. ■ **N**--Default. Do not expand INCLUDE statements.
Signout Element	Applicable when retrieving an element with signin/signout in effect. ■ **Y**--Default. Sign out the retrieved element to your user ID. ■ **N**--Retrieve the element but don't sign it out to your user ID. This option should be used only when you want a copy of the element to review, and not when you intend to make changes to the element. If you select **N**, Endevor ignores the element's CCID and COMMENT fields.
Override Signout	Tells Endevor whether to retrieve an element even if it is not signed out to you. ■ **Y**--Retrieve the element, even if it is not signed out to you. Endevor signs the element out to you if you specify this option. ■ **N**--Default. Do not retrieve the element if it is not signed out to you.
Replace Member	Applicable if the TO data set is a library. Tells Endevor whether to replace a member with the same name in the TO data set. ■ **Y**--Retrieve the element, replacing the member with the same name. ■ **N**--Default. Do not retrieve the element if a member with the same name exists in the to data set.

6.16.3.5 To ISPF Library Fields

Use these fields to specify the data set to which to retrieve the element(s). If the named data set is a library, and you:

- Provide a single element name in the ELEMENT field and leave the MEMBER field blank, Endevor uses the element name as the member name.
- Leave the ELEMENT field blank, provide a name mask, or specify a range of elements, you must leave the MEMBER field blank.

If you leave the OPTION field blank, Endevor produces the selection list based on the values in the ELEMENT field.

6.16.3.6 To Other Partitioned or Sequential Data Set Field

As an alternative to the TO ISPF LIBRARY fields, enter the data set name, and member if the data set is a library, in '*data set(member name)* ' format.

6.16.3.7 List Options Fields

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). Default is **Y**.
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to only those elements to which the group is assigned.
Build Using Map	Default is **N.** Type **Y** in this field if you want Endevor to search the map when building a list of elements for retrieval, starting at the FROM location. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.
First Found	Default is **Y**. Indicates whether the selection list should include only the first occurrence of specified elements found when searching the map.

6.16.4 Element Selection List for the Retrieve Action

The Element Selection List for the Retrieve action is shown next. Endevor supports the Locate command on Element Selection Lists.

```
RETRIEVE ------------------  ELEMENT SELECTION LIST  -------  ROW 281 OF 2412
COMMAND ===>                                              SCROLL ===> PAGE

  ELEMENT   NEW NAME    TYPE      ENVIRON  S  SYSTEM    SUBSYSTEM  VV.LL  RC
  @WRKTYDS              ASMIMAC   BST      P  NDVR250   INTERNAL   01.01  0000
  AC1PSERV              LNKIRN24  BST      P  NDVR250   INTERNAL   01.04  0000
  ASMUSERT              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BAIODSCT              COBCOPY   BST      P  NDVR250   INTERNAL   01.01  0000
  BASICDEL              ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICDEL              LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN              ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN              LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BC1DXFPI              XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0012
  BC1DXFPR              XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JACCT              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JANLZ              CNTLE     BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JCMPR              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JCONV              CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
  BC1JDB2R              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JDEFT              CNTLE     BST      P  NDVR250   INTERNAL   01.07  0000
  BC1JELIB              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BC1JFUP1              CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
```

Note: Element Selection lists are sorted alphabetically by element name, stage, system, subsystem, and type. Whenever possible, you should fully qualify a system when requesting the selection list. If you cannot fully specify a system, be sure to look carefully at the Endevor location (environment/stage) and classification (system/subsystem/type) information associated with a located element to make sure it is the element for which you are looking.

Use the NEW NAME field on this list to change the name of an element at the target location of the retrieve. For information about the other fields on this panel, see Element and Member Selection Lists in Foreground and Batch Processing.

6.16.5 Retrieving Prior Versions

The Summary of Levels panel allows you to retrieve prior versions of an element, by specifying an **R** in the SELECTION field. The Summary of Levels panel appears when you either:

- Enter **S** as the option on the Retrieve Elements panel, with the element uniquely qualified.
- Enter an **S** next to a particular element on the Retrieve Element Selection List.

For a detailed description of this panel, see Summary of Levels Panel in Chapter 5, "Displaying Endevor Information."

In this example, Version 01 Level 05 has been selected for retrieval.

```
RETRIEVE ------------------  SUMMARY OF LEVELS  ----------------  ROW 1 OF 2
COMMAND ===>                                                  SCROLL ===> PAGE
FROM    Environment: BST          System: NDVR250        Subsystem: INTERNAL
        Element:     C1SD1000     Type:   ASMIPGMR       Stage:     D
TO      Data set:    BST.NDVRC1.SRCLIB
------------------------  SOURCE LEVEL INFORMATION  -----------------------
  VV.LL NEWNAME    DATE    TIME   STMTS  COMMENT
R 01.05            06SEP01 10:58   643
  01.06            06SEP01 10:58   659
****************************** BOTTOM OF DATA  ******************************
```

6.16.6 Impact of Retrieve Action on Signout IDs

When you set SIGNOUT ELEMENT = **Y**, Endevor signs the element out to you by recording your user ID in the SIGNOUT ID field on the Master Control File for the stage from which the element was retrieved.

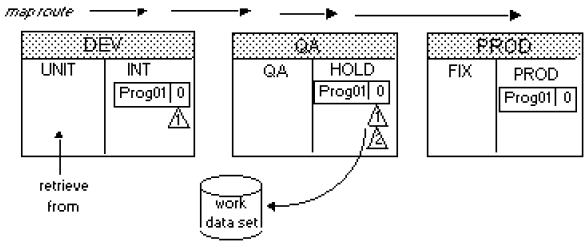
6.16.7 Impact of Retrieve Action on CCIDs/Comments

When you set SIGNOUT ELEMENT = **Y**, Endevor records the CCID and comment you specified in the RETRIEVE CCID and COMMENT fields in the Master Control File. If you specify SIGNOUT ELEMENT = **N**, Endevor does not update this information.

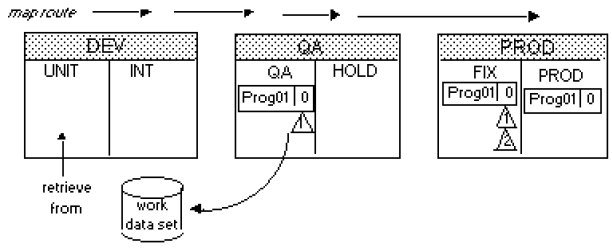
6.16.8 Retrieve Processing

Retrieving an element copies that element from an inventory location to an external data set. When you retrieve an element, Endevor:

1. Determines whether the element is signed out. If it is signed out to a person other than you, and if you do not specify SIGNOUT ELEMENT = **N**, you must specify OVERRIDE SIGNOUT = **Y** in order to retrieve the element. Remember: You must be authorized in order to use the override signout option.
2. Searches for the specified element, in the following order:
   - At the location specified in the RETRIEVE action.
   - In each stage in the environments on the map route.



   If Endevor finds the element at a subsequent stage that is not part of the map it issues a warning message.



Note: If you do not know the exact location of the element you wish to retrieve, specify the lowest stage in the map route. This allows Endevor to search the entire map route for the element.

3. Copies the current level of the element to the output data set. If you specify EXPAND INCLUDES = **Y**, the system expands any INCLUDE statements when it copies the source.

   Note the following, if the output data set is a library:

   - If the member currently exists in the library, you must specify REPLACE MEMBER = **Y** in order to perform the RETRIEVE action. Otherwise, Endevor rejects the request.
   - By default, the member name assigned will be the same as the element name entered. You can, however, designate a different member name to be used. In this situation, Endevor assigns the new name to the retrieved element in the user library.

4. If you specified SIGNOUT ELEMENT = **Y**, Endevor updates the Master Control File and signs the element out to you. If you specified SIGNOUT ELEMENT = **N**, Endevor stops processing the action after it creates the copy in Step 3.

For additional details about the RETRIEVE action, see the *SCL Reference Guide*.

6.17 Signin Elements Action

6.17.1 Before You Begin

Before you use the Signin action the first time, review the following information:

- Use--Use the SIGNIN action to remove the signout user ID associated with an element. SIGNIN is only available for systems where signin/signout is in effect.
- Availability--You can sign in elements in foreground, in batch, and in a package.
- Specification--Use the Signin Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

  For instructions on accessing this panel in foreground, batch, and when building a package, see Chapter 4,"Foreground and Batch Processing."

6.17.2 Signin Elements Panel

The Signin Elements panel is shown next.

```
------------------------------  SIGNIN ELEMENTS  ---------------------------
OPTION  ===>
                               ELEMENT DISPLAY OPTIONS:
   blank - Element list           S - Summary   B - Browse   H - History
   SI - Sign-in element           M - Master    C - Changes

FROM Endevor:                     ACTION OPTIONS:
  ENVIRONMENT ===> DOC                  OVERRIDE SIGNOUT ===> N (Y/N)
  SYSTEM      ===> FINANCE              SIGNOUT TO       ===>
  SUBSYSTEM   ===> *
  ELEMENT     ===>
  TYPE        ===> *
  STAGE       ===>          A - TEST         B - PROD

LIST OPTIONS:
  DISPLAY LIST      ===> Y (Y/N)
  WHERE CCID EQ     ===>
  WHERE PROC GRP EQ ===>
  WHERE USER EQ     ===>
  BUILD USING MAP   ===> N (Y/N)
```

6.17.3 Fields

The Signin Elements panel fields are described next.

6.17.3.1 Option Field

Use the OPTION field to specify the processing you wish to perform.

Use this option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
SI	Sign in the element.
S, M, B, C, H	Display one of the listed element information panels.

6.17.3.2 From Endevor Fields

Use these fields to define the element you want to sign in or display.

Field	Description
Environment	Name of the current environment.
System	The system associated with the element(s) to be signed in.
Subsystem	The subsystem associated with the element(s) to be signed in.
Element	Element(s) you want to sign in.
Type	Name of the type associated with the element(s) to be signed in.
Stage	ID of the current stage.

6.17.3.3 Action Options

These fields allow you to define your action request

Field	Description
Override Signout	Acceptable values are: ■ **Y**--Sign in the element even if it is not currently signed out to you. Proper authority is required to specify **Y**. ■ **N**--Default. Do not allow the SIGNIN action unless the element is already signed out to you.
Signout To	Sign out the element to another user after signing it in.

6.17.3.4 List Options

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). The default is **Y**.
Where CCID Eq	Use a CCID to limit the list to those elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Use a processor group name to limit the list to those elements to which the group is assigned.
Where User Eq	Use a signout user ID to limit the list to those elements whose user ID is equal to the specified signout user ID. Valid in foreground only.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map, starting at the FROM location, when building a selection list for signin. ***Caution!*** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.17.4 Impact of Signin on Signout IDs

You cannot sign in an element unless it is already signed out to you, unless you specify OVERRIDE SIGNOUT = **Y**.

When you specify a SIGNIN action, Endevor clears the SIGNOUT ID field at the stage at which the signin is being performed, unless you also specify a user ID in the SIGNOUT TO field. If you specify a user ID in the SIGNOUT TO field, Endevor sets the SIGNOUT ID at the stage at which the action is being performed to the user ID specified in the action.

6.17.5 Impact of Signin on CCIDs

A SIGNIN action against an Endevor element clears the retrieve CCID/comment for that element.

6.17.6 Signin Processing

The SIGNIN action "removes" the user signout associated with a particular element. The processing sequence for SIGNIN is described below. For more information, see the *SCL Reference Guide*.

1. Endevor first determines whether the element is currently signed out. If the element has been signed out to a person other than you, you must specify

OVERRIDE SIGNOUT = **Y** in order to perform the SIGNIN action. Remember: You must be authorized to use this option.

After you sign in an element you can assign that element to another user with the SIGNOUT TO option.

2. Endevor then updates the Master Control File for the element, removing the current signout (that is, the user ID associated with the last RETRIEVE action).

6.18 Transfer Elements Action

6.18.1 Before You Begin

Before you use the Transfer action the first time, review the following information:

- Use--Use TRANSFER to move elements from one location to another location that is not on the same map route. You can transfer from:
  - Endevor to Endevor.
  - Endevor to an Endevor archive data set.
  - An Endevor archive data set to Endevor.
- Availability--You can transfer elements only in batch and in packages.
- Specification--Use the Transfer Elements panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

  For instructions on accessing this panel in foreground, batch, and for inclusion in a package, see Chapter 4, "Foreground and Batch Processing."

Note: To transfer to or from an archive data set, first specify the TRANSFER request, then edit the resulting request data set. For instructions on editing request data sets, see Chapter 4, "Foreground and Batch Processing." For the TRANSFER action syntax, see the *SCL Reference Guide*.

6.18.2 Transfer Elements Panel

The Transfer Elements panel is shown next.

```
------------------------------  TRANSFER ELEMENTS  --------------------------
OPTION  ===>
                              ELEMENT DISPLAY OPTIONS:
   blank - Element list          S - Summary   B - Browse    H - History
   T - Transfer element          M - Master    C - Changes
FROM Endevor:                          LIST OPTIONS:
  ENVIRONMENT ===>                           DISPLAY LIST      ===> Y  (Y/N)
  SYSTEM      ===>                           WHERE CCID EQ     ===>
  SUBSYSTEM   ===>                           WHERE PROC GRP EQ ===>
  ELEMENT     ===>                           BUILD USING MAP   ===> N  (Y/N)
  TYPE        ===>
  STAGE       ===>    D-CSTAGE  P-CPROD  ACTION OPTIONS:
                                           CCID              ===>
TO Endevor:                                DELETE FROM ELM   ===> Y  (Y/N)
  ENVIRONMENT ===>                         GENERATE ELEMENT  ===> Y  (Y/N)
  SYSTEM      ===>                         OVERRIDE SIGNOUT  ===> N  (Y/N)
  SUBSYSTEM   ===>                         PROCESSOR GROUP   ===>
  ELEMENT     ===>                         SYNC              ===> N  (Y/N)
  TYPE        ===>                         WITH HISTORY      ===> N  (Y/N)
  STAGE       ===>                         RETAIN SIGNOUT    ===> N  (Y/N)
                                           SIGNOUT TO        ===>
  COMMENT     ===>
```

6.18.3 Fields

The Transfer Elements panel fields are described next:

6.18.3.1 Option Field

Use this field to specify the processing you want to perform.

Use This Option	To...
Blank	Display a selection list. This only applies when DISPLAY LIST = Y.
T	Generate an action request to transfer the element from the FROM location to the TO location.
S, M, B, C, H	Display one of the listed information panels.

6.18.3.2 From Endevor Fields

Use these fields to define the starting location for the transfer, and the element(s) to be transferred.

Field	Description
Environment	Name of the current environment.
System	System associated with the element(s) to be transferred.
Subsystem	Subsystem associated with the element(s) to be transferred.
Element	Element(s) you want to transfer.
Type	Type associated with the element(s) to be transferred.
Stage	ID of the current stage.

6.18.3.3 To Endevor Fields

These fields allow you to define the target location for the transfer. You cannot use name masks with TO fields. The descriptions of the TO Endevor fields are the same as those of the FROM Endevor fields. If you do not enter information in these fields, Endevor uses the default values in the FROM Endevor fields. See the section Name Masking for more information on specifying a mask character.

6.18.3.4 Comment Field

A 1- to 40-character comment describing the TRANSFER request.

6.18.3.5 List Options

Use these fields to limit the elements shown in the Element Selection List.

Field	Description
Display List	Indicates choice to use list panels for this action: **Y** (yes) or **N** (no). The default is **Y**.
Where CCID Eq	Limits the list to elements whose last level, action or generate CCID is equal to the specified CCID.
Where Proc Grp Eq	Limit the list to those elements to which the named group is assigned.
Build Using Map	Type **Y** (yes) in this field if you want Endevor to search the map, beginning at the FROM location, when building a list of elements to be transferred. **Caution!** Avoid using BUILD USING MAP = Y in combination with DISPLAY LIST = N.

6.18.3.6 Action Options

Use these fields to specify information related to the action request.

Field	Description
CCID	CCID associated with the transfer.
Delete From Element	Tells Endevor whether to delete the element in the source location after transferring it. ■ **Y**--Default. Delete the element at the source location. ■ **N**--Do not delete the element. **Caution!** If you specify option **N** to leave the element at the source location, then you must specify SYNC = Y for any subsequent transfers of this element.
Generate Element	Tells Endevor whether to generate the element after transferring it. ■ **Y**--Default. Generate the element. ■ **N**--Do not generate the element.

Field	Description
Override Signout	Tells Endevor whether to transfer the element(s) even if it is not signed out to you. ■ **Y**--Transfer the element, even if it is not signed out to you. Endevor signs the element out to you if you specify this option. ■ **N**--Default. Do not transfer the element if it is not signed out to you. **Note:** Applies only if DELETE FROM ELEMENT = Y.
Processor Group	The name of the processor group to be associated with the element. You can type a processor group name in this field or use a name mask to access a list of processor groups from which you can select. See the section Name Masking for more information on specifying a mask character. If you do not provide a processor group name, Endevor selects a processor group.
Sync	Indicates whether you want the TRANSFER action performed when the base level of the element at the source location is different from the current level of the element at the target: **Y** (yes) or **N** (no). The default is **N**. The transfer fails if these levels are different and you have specified SYNC = N. You must specify SYNC = Y when moving an element that has remained at a source location after being transferred using DELETE FROM ELEMENT = N.
With History	Indicates whether you want to transfer the element with history. Default is **N**, transfer the element without history. When you transfer the element without history Endevor searches through the element levels at the source location to find a matching level at the target location. Endevor then compares the two and creates a new level at the target location that reflects the differences.

Field	Description
Retain signout	Determines whether Endevor retains the signout associated with an element at the source location when it is transferred to the target location. Acceptable values are: ■ **Y**--Retain the source location signout at the target location. ■ **N**--Default. Do not retain the source location signout at the target location.
Signout to	Type the TSO user ID of the person to whom you want to sign out the element in this field. If RETAIN SIGNOUT = Y, you cannot use this option.

6.18.4 Element Selection List for the Transfer Panel

Endevor supports the ISPF Locate command on Element Selection Lists.

Note: Element Selection lists are sorted alphabetically by element name, in map-sequence order. Whenever possible, you should fully qualify a system when requesting the selection list. If you cannot fully specify a system, carefully examine the Endevor location (environment/stage) and classification (system/subsystem/type) information associated with a located element to make sure it is the element you want.

```
TRANSFER ----------------  ELEMENT SELECTION LIST  -------  ROW 281 OF 2412
COMMAND ===>                                              SCROLL ===> PAGE
  ELEMENT    TO NAME    TYPE      ENVIRON  S  SYSTEM    SUBSYSTEM  VV.LL  RC
  @WRKTYDS              ASMIMAC   BST      P  NDVR250   INTERNAL   01.01  0000
  AC1PSERV              LNKIRN24  BST      P  NDVR250   INTERNAL   01.04  0000
  ASMUSERT              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BAIODSCT              COBCOPY   BST      P  NDVR250   INTERNAL   01.01  0000
  BASICDEL              ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICDEL              LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN              ASMIPGMR  BST      P  NDVR250   INTERNAL   01.00  0004
  BASICGEN              LNKERENT  BST      P  NDVR250   INTERNAL   01.00  0004
  BC1DXFPI              XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0012
  BC1DXFPR              XFPEOBJ   BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JACCT              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JANLZ              CNTLE     BST      P  NDVR250   INTERNAL   01.01  0000
  BC1JCMPR              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JCONV              CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
  BC1JDB2R              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0004
  BC1JDEFT              CNTLE     BST      P  NDVR250   INTERNAL   01.07  0000
  BC1JELIB              CNTLE     BST      P  NDVR250   INTERNAL   01.00  0000
  BC1JFUP1              CNTLE     BST      P  NDVR250   INTERNAL   01.02  0000
```

Use the TO NAME field on this list to change the name of an element at the target location of the transfer. For information about the other fields on this panel, see the section, Element and Member Selection Lists, in Chapter 4, "Foreground and Batch Processing."

Note: If you are invoking the move processor for TRANSFER actions, you cannot rename elements at the target location of the transfer.

6.18.5 Impact of Transfers on CCIDs and Comments

When you specify a CCID and/or comment in a TRANSFER action, Endevor updates CCID and/or COMMENT fields differently depending on whether you specify the Transfer request without history, with history, or with synchronization.

Action	Current Source CCID/ Comment	Generate CCID/ Comment	Last Action CCID/ Comment	Retrieve CCID/ Comment	Source Delta CCID/ Comment	Component Delta CCID/ Comment
Transfer -- Without History	Set from previous stage value	Set if generated	Set	Clear	Set from last delta value previous stage	Set if generated
Transfer -- With History	Set from previous stage value	Set if generated	Set	Clear	Carried with delta levels	Set if generated
Transfer -- With SYNC	Set from previous stage value	Set if generated	Set	Clear	Set from base value	Set if generated

If you select GENERATE ELEMENT = **N** (no), the TRANSFER action does **not** set the generate or component list delta CCID and/or COMMENT fields.

6.18.6 Transfers Using a Move Processor

By default, the TRANSFER action executes a generate processor at the target location. This means that it does not transfer component list information. To transfer component list information along with the element, you can transfer elements using a move processor. If you want to do this, make sure to specify **M** in the PROCESSOR TO USE FOR THE TRANSFER ACTION field on the definition panel for the appropriate processor group.

6.18.7 Transfers Using Delete from Element Option

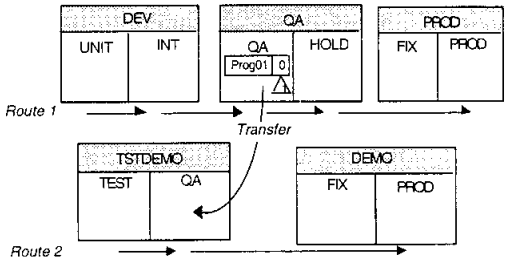
When you transfer an element with DELETE FROM ELEMENT = **N**, Endevor leaves a copy of the element at the source location of the transfer. Consider using this option only when you do not plan to transfer the element from the source location.

If you do transfer the element that remains at the source location, the transfer fails unless you specify SYNC = **Y**.

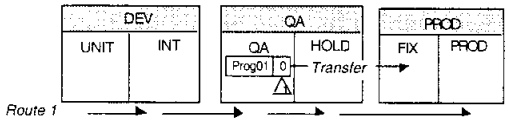
6.18.8 Transfer Processing

You can transfer elements from:

- One Endevor location to another Endevor location, specifically:
  - From one map route to another.



- From a location in a map to a stage in a map environment, but not on the map route.



Use the MOVE action to move elements through the software life cycle. Use TRANSFER to move elements when the move is not associated with the software life cycle.

- Endevor to an archive data set or unload tape. This is available only in batch. When you transfer elements to an archive data set, you can execute COPY, LIST, and RESTORE actions against that data set.
- An archive data set or unload tape to Endevor. This is available only in batch.

When Endevor transfers elements, it:

- Deletes the elements in the origin location. You can preserve the element by selecting DELETE FROM ELEMENT = **N**.
- Signs the elements in at the target location. You can request that the elements either retain the same signout status (RETAIN SIGNOUT = **Y**), or change the signout status (SET SIGNOUT TO option).
- Generates the elements at the target location. You can override this step by selecting GENERATE ELEMENT = **N**.

For additional information, see the *SCL Reference Guide*.

6.18.9 Transferring from Endevor to Endevor

Before transferring elements from one Endevor location to another, Endevor does the following:

- Checks signout status. If you plan to:
  - Delete the element at the source location after the transfer (DELETE FROM ELEMENT = **Y**), Endevor checks signout status at both the source and the target of the transfer. If the element is not signed out to you at both locations, you must specify OVERRIDE SIGNOUT = **Y**.
  - Leave the element(s) at the source location after the transfer (DELETE FROM ELEMENT = **N**), Endevor checks signout status only at the target of the transfer. If the element(s) are not signed out to you at the target, you must specify OVERRIDE SIGNOUT = **Y**.
- Makes sure that the most recent processor executed against the element(s) ran successfully. You can override this check by specifying IGNORE GENERATE FAILED = **Y**.

When transferring an element, Endevor performs as many of the following processes as appropriate:

1. Source management. This includes the actual transfer of the element and MCF updates.
2. Processor management. This includes executing the generate processor at the target or the move processor at the source (based on the processor group setting at the source location), writing to a source output library and to the appropriate processor output libraries.
3. Delete processing. This involves executing the delete processor and deleting the element at the source location of the Transfer.

You can transfer elements with or without history.

6.18.10 Transferring with History

To transfer with history, specify WITH HISTORY = Y on the TRANSFER request. Endevor then:

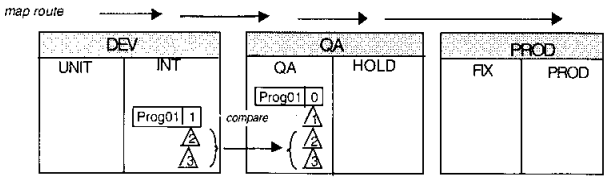
1. Checks the following and issues messages as necessary:
   - Does the element exist at the source location?
   - Does the element exist at the target location?
   - Is source and processor management necessary?
2. Performs source management by transferring the element. The processing that Endevor performs depends on whether the element exists at the TO location.
   a. If the element does not exist at the target, Endevor searches the map for subsequent occurrences of the element. If it finds the element farther along

the map, it compares the levels of the element to be transferred with the current level of the found element. If the two are in sync, Endevor copies back (or fetches) the current level of the element from up the map to the target location. If the two are not in sync, Endevor issues a warning message and does not perform the copy.

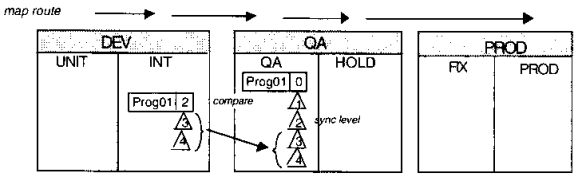
If Endevor finds the element at a stage not included in the map, it issues a warning message, then continues to search for the element in a stage that is included in the map

b. If the element exists at the target location, Endevor performs level-matching. During level-matching, Endevor determines the sync point of the source and target elements by comparing the level time stamp of the base level of the source element with the current level of the target element. If the two time stamps do not match, Endevor checks the next oldest level of the source element, and so on.

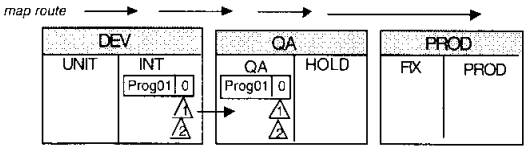
   - If the sync point is found, Endevor transfers the element from the FROM location to the TO location, appending all levels following the sync point of the element in the FROM location to the element in the TO location.



   - If the two levels are different, and SYNCHRONIZE =Y, Endevor first creates a sync level at the target reflecting the differences between the base level of the FROM element and the target, then transfers the element to the TO location and appends the FROM location delta levels to the target.



c. If the element does not exist at the target, Endevor transfers the element from the source to the target location with all delta levels intact.



3. Completes source management after the element base and change levels have been transferred by updating the Master Control File (MCF) to reflect the transfer.

Note that the value specified for Signout Upon Fetch (the SOFETCH parameter) in the Endevor Defaults Table will effect how the MCF will be updated for the element copied back (fetched).

If Signout Upon Fetch is in effect, the element will be signed out to you unless it is already signed out to someone else.

If Signout Upon Fetch is not in effect, the element will not be signed out to you.

See the section Endevor Defaults Table in the *Installation Guide* for more information about Signout Upon Fetch (the SOFETCH parameter).

4. Performs processor management based on the value in the GENERATE ELEMENT field. If the value in this field is **N**, Endevor does not generate the element. If the value in this field is **Y**, Endevor:

   a. Reads the type definition for a source output library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y**, Endevor expands INCLUDE statements in the source.

   b. Determines the processor group to use (see Appendix A, "Actions and Processor Groups," for information). Endevor then executes the generate processor in that group if one has been specified.

   After the generate processor has been run for the element, Endevor updates processor information in the Master Control File.

5. Finally, Endevor performs standard delete processing for the element in the FROM location, unless you specify DELETE FROM ELEMENT = **N** and/or BYPASS DELETE PROCESSOR = **Y**.

6.18.11 Transferring Without History

To transfer without history, specify WITH HISTORY = **N** on the TRANSFER request. Endevor executes the request and attempts to find a sync level between the source and target elements beginning with the first level at the source and working forward through the deltas. If Endevor finds a sync level it compares the two and creates a new level at the target that reflects the differences. If Endevor cannot find a sync level and you specify SYNC = **N,** Endevor issues a message indicating that the elements are "out of sync" and the TRANSFER action terminates. If Endevor cannot find a sync level and you specify SYNC = **Y**, Endevor issues a message indicating that the elements are "out of sync" then compares the last level of the source and last level of the target and creates a new level at the target that reflects the differences.

For TRANSFER action batch syntax, see the *SCL Reference Guide*.

6.18.12 Restarting Transfers

If a TRANSFER action fails, first respond to the error condition, then resubmit the TRANSFER request. When you restart a TRANSFER action:

- After a source management failure, Endevor performs source management, processor management, and delete processing.
- After a processor management failure, Endevor bypasses source management, and performs just processor management and delete processing.
- After a delete failure, Endevor bypasses source management and processor management, and performs just delete processing.

6.18.13 Archive Data Set or Unload Tape to Endevor

For the steps that Endevor executes when transferring elements from an archive data set to Endevor, see "Transferring from Endevor to Endevor."

This type of TRANSFER request is not available directly through a foreground or batch panel. For additional information, see the *SCL Reference Guide*.

6.18.14 Endevor to Archive Data Set or Unload Tape

The processing flow for this action is described below.

1. Endevor again must ensure that the specified element can be transferred:
   - If DELETE FROM ELEMENT = **Y**, Endevor determines whether the element has been signed out. If the element has been signed out to a person other than you, you must specify OVERRIDE SIGNOUT = Y in order to perform this action. Remember: You must be authorized to use the override signout option.
   - Endevor then checks the *FAILED* flag. If this flag has been set, you must specify IGNORE GENERATE FAILED = **Y** in order to proceed.
2. Once it has been determined that the element can be transferred to the archive data set or unload tape, Endevor writes out the following to that file:
   - The element definition.
   - The Endevor base and change levels associated with that element.
   - The Component List associated with that element (applicable only if you are using the Endevor ACM product).

     It is not necessary to determine whether the element currently exists in the archive data set or unload tape; the above information is transferred even if the element does exist in the TO location.
3. Endevor then performs standard delete processing for the element, unless you specify DELETE FROM ELEMENT = **N** and/or BYPASS DELETE PROCESSOR = **Y**. For more information, see Delete Action.

6.19 Update Elements Action

6.19.1 Before You Begin

Before you use the UPDATE action for the first time, review the following information:

- Use--The UPDATE action allows you to add a member to Endevor when an element with the same name is in the target Satge 1.
- Availability--You can update elements in foreground, batch and and in packages.
- Specification--Use the Add/Update panel to specify the type of processing you want to perform and any other information related to the request. To submit the request after you have filled in the appropriate information, press ENTER.

6.19.2 Update Element Processing

When you update an element, Endevor:

1. Makes sure that the element currently exists in Stage 1. If the element does not exist in Stage 1, the update fails.
2. Determines whether the element is signed out to you. If the element is signed out to a person other than you, you must specify OVERRIDE SIGNOUT = **Y** in order to update the element.

Note: If the element is in Stage 1 but is identical to the update source element, you receive a warning message indicating "NO CHANGES," and no level is created.

1. Stores update changes in the delta library as a new level.
2. Continues based on the value in the GENERATE ELEMENT field. If the value in this field is **N**, Endevor does not generate the element. If the value in this field is **Y**, Endevor:
   - Reads the type definition for a Source Output Library specification, then writes a copy of the current level of the element to that library. If EXPAND INCLUDES = **Y**, Endevor expands INCLUDE statements in the source.
   - Determines the processor group to use (see Appendix A, "Actions and Processor Groups," for information). Endevor then executes the generate processor in that group (if one has been specified).

     After the generate processor has been run for the element, Endevor updates the information in the Master Control File.
3. Updates the Master Control File after the element is successfully updated. If you have specified DELETE INPUT SOURCE = **Y**, Endevor deletes the member indicated in the FROM library.

Appendix A. Actions and Processor Groups

A.1 Overview

A.1.1 Processor Group Behavior

Processor groups are associated with elements through the element type. As Endevor actions are executed, the processor group associated with an element may change.

There are many variants (for example, element location, mapping, processor group overrides) involved in selecting elements and executing actions against them. A change in one variant can change the processor group from which a processor is run, providing unexpected results when the action is executed.

A.1.2 How to Avoid Surprise and Confusion

This appendix provides tables for each action, showing the impact of actions upon processor group selection. Each table shows various sets of conditions and the expected results specific to each set of conditions. An example follows the tables, to further clarify the information presented.

Use these tables as a guideline to determine whether the appropriate (or expected) processor group name and definition have been associated with the element(s) you are working with. The tables indicate which processor was executed, from which processor group name and definition, and the processor group name assigned after the action is complete. Compare the table information to your results when the action has executed.

A.1.2.1 Be Aware

The sets of conditions presented for each action reflect common situations. *Not every situation is noted, however.*

- If you find results that differ from those in the tables, check your criteria to be sure that the conditions for the action do match. If the conditions differ, the expected results may not occur.
- If, however, you execute an action with conditions that do match the criteria in the tables but produce different results, call Endevor Technical Support for further information.

A.1.3 How the Tables Are Set Up

The following actions impact the processor group selected:

- Add
- Add/Update
- Delete
- Update

- Generate
- Generate with Copyback
- Restore
- Move using the move processor
- Move using the generate processor
- Transfer using the move processor
- Transfer using the generate processor

Tables are provided for each of these actions. The first table displays the condition(s) under which you execute the action. The second table displays the results of executing the action; that is, which processor, from which processor group, is executed as a result of the specific conditions.

The table content and variables used within the table are defined in the next sections.

A.1.4 Table Contents

Entries in the second ("Given these conditions...") column are defined as follows:

Entry	Definition
Element exists at target	Indicates whether the element you are working with exists at the target location: Y or N.
Element exists up map	Indicates whether the element you are working with exists up the map: Y or N.
Proc Grp override (client)	Indicates whether you have manually overridden the processor group name at this time, for this element, for this action: Y or N.
Proc Grp mapped (system-defined)	Indicates whether the system administrator has defined a different processor group for this element at the next map location: Y or N.
Proc Grp change	Indicates whether the processor group at the target location is changing: Y or N. A change can occur only if the processor group has been overridden or mapped *and* the element exists at the target.

Entries in the third ("This Processor Is Executed") column are defined as follows:

Entry	Definition
Target (T)/Source (S)--Processor Type	Indicates the type of processor executed as a result of the action--Generate, Move, or Delete processor--and whether the processor was at the target location (T) or the source location (S). The variable format in the table is as follows: (S/T)-processor type
Proc Grp Name taken from...	Indicates from where Endevor took the processor group name for this action (for example, from the source element or the target element).
Proc Grp Def taken from...	Indicates from where Endevor took the processor group definition for this action (for example, target or source).
Label given when action complete	Indicates from where Endevor took the processor group name that is assigned to the element when the action has completed (for example, fetched element, target element).

A.1.5 Variables

Variables are used in the tables to indicate from where information is taken. These variables are defined as follows:

Variable	Definition
PG chg	Indicates that the processor group has changed, per the conditions for the action (override or mapping).
Fetched element	Element copied back to the TO location for Add and Transfer actions, and to the FROM location of a Generate with Copyback action.
Target default	Default processor group name for the type at the target location.
Override	Processor group specified using the PROCESSOR GROUP OVERRIDE option. Processor group overrides are done explicitly by the client, on an action-by-action basis.

Variable	Definition
Target element (Target)	Element at the target, or TO, location of the action. Or, the element that is being updated, generated (without copyback), or deleted.
Source element (Source)	Element at the source, or FROM location of the action.
Map	The processor group specified through the NEXT PROCESSOR GROUP option, which indicates the name of the processor group at the next map location. NEXT PROCESSOR GROUP is assigned by the system administrator and cannot be changed by the user for a specific action. If no processor group is assigned up the map, Endevor uses the source element processor group.

A.1.6 Rules

The following rules apply when using processor groups:

- A processor group change may occur only when the element exists at the target location.
- You cannot override a processor group on a Move action.
- For Move and Transfer actions, the source processor group always determines the type of processor (generate or move) to be executed.

A.1.7 Example Criteria

One or more examples is provided for each action. The criteria used in the examples is given below:

	Environment 1 Stage 1	**Environment 1 Stage 2**	**Environment 2 Stage 3**	**Environment 2 Stage 4**
Type	COBOL	COBOL	COBOL	COBOL
Processor Group Name	**LOPGA**	**LOPGA**	**LOPGA**	**LOPGA**
Generate Processor	SIMPLGA	SIMPLGA	SIMPLGA	SIMPLGA
Delete Processor	SIMPLDA	SIMPLDA	SIMPLDA	SIMPLDA
Move Processor	SIMPLMA	SIMPLMA	SIMPLMA	SIMPLMA
Processor Group Name	**LOPGB**	**LOPGB**	**LOPGB**	**LOPGB**

	Environment 1 Stage 1	**Environment 1 Stage 2**	**Environment 2 Stage 3**	**Environment 2 Stage 4**
Generate Processor	SIMPLGB	SIMPLGB	SIMPLGB	SIMPLGB
Delete Processor	SIMPLDB	SIMPLDB	SIMPLDB	SIMPLDB
Move Processor	SIMPLMB	SIMPLMB	SIMPLMB	SIMPLMB
Processor Group Name	**LOPGC**	**LOPGC**	**LOPGC**	**LOPGC**
Generate Processor	SIMPLGC	SIMPLGC	SIMPLGC	SIMPLGC
Delete Processor	SIMPLDC	SIMPLDC	SIMPLDC	SIMPLDC
Move Processor	SIMPLMC	SIMPLMC	SIMPLMC	SIMPLMC

The examples pertain to selected cases in the table.

Note that examples are not provided for every case. The examples should serve as a guideline to help you determine the processor executed and the label assigned.

A.2 Add Action and Processor Groups

A.2.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists up map: Yes ■ Process Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: fetched element ■ Processor Group taken from: target ■ Label given when action is complete: fetched element
2	■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: target default ■ Processor Group Defintition taken from: target ■ Label given when action complete: target default
3	■ Element exists up map: Yes ■ Processor Group override (client): Yes	■ Target (T)/Source (S) Processor Type: T-Generate ■ Processor Group name taken from: override ■ Processor Group Defintion taken from: target ■ Label given when action complete: override
4	■ Element exists up map: No ■ Processor Group override (client): Yes	■ Target (T)/Source (S) Processor Type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Definition taken from: target ■ Label given when action complete: override

A.2.2 Example: Case 1

Scenario: You are adding element FINAPP01 to type Cobol. The element exists up the map, at Stage 3, labeled with processor group LOPGC. You do not provide a processor group override for the action.

Processor executed: SIMPLGC, from processor group LOPGC of Stage 1

Label Assigned: LOPGC

A.3 Add/Update Actions and Processor Groups

A.3.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is complete: target element
2	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is complete: target element
3	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group name taken from: target element override ■ Processor Group Definition taken from: target target ■ Label given when action is complete: override

Case	Given these conditions	This Processor is executed
4	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group name taken from: target element ■ Processor Group Definition taken from: target target ■ Label given when action is complete: override

A.3.2 Example: Case 1

Scenario: You are adding element FINAPP01 to type Cobol. The element exists at the target and up the map, at Stage 4, labeled with processor group LOPGB. You do not provide a processor group override for the action.

Processor executed: SIMPLGB from Stage 1

Label Assigned: LOPGB

A.3.3 Example: Case 3

Scenario: You are adding element FINAPP01 to type Cobol. The element exists at the target and up the map, labeled with processor group LOPGB. You provide a processor group override, LOPGA, which causes the processor group name to change. Two processors are executed.

1st Processor executed: SIMPLDB from Stage 1

2nd Processor executed: SIMPLGA from Stage 1

Label Assigned: LOPGA

A.4 Delete Action and Processor Groups

A.4.1 Impact

Case	Given these conditions	This Pocessor is executed
1	■ Element exists at target: Yes	■ Target (T)/Source (S) Processor Type: T-Delete ■ Processor Group name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is complete: target element

A.4.2 Example: Case 1

Scenario: You are deleting element FINAPP02 from Stage 2. The element exists at the target only, and is labeled with processor group LOPGB.

Processor executed: SIMPLDB from Stage 2

Label Assigned: None, the element is deleted.

A.5 Generate Action and Processor Groups

A.5.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: target element ■ Processor Group taken from: target ■ Label given when action is complete: target element
2	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is complete: target element
3	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group name taken from: target element override ■ Processor Group Definition taken from: target target ■ Label given when action is complete: override

Case	Given these conditions	This Processor is executed
4	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group Name taken from: target element override ■ Processor Group Definition taken from: target target ■ Label given when action is complete: override

A.5.2 Example: Case 1

Scenario: You are generating element FINAPP01 at Stage 2 where it is labled with processor group LOPGB. You do not povide a processor group override for the action.

Processor executed: SIMPLGB from Stage 2

Label Assigned: LOPGB

A.5.3 Example: Case 4

Scenario: You are generating element FINAPP01 at Stage 2 where it is labeled with processor group LOPGB. You provide a processor group override for the action, LOPGC, which causes the processor group name to change. Two processors are executed.

1st Processor executed: SIMPLDB from Stage 2.

2nd Processor executed: SIMPLGC from Stage 2.

Label Assigned: LOPGC

A.6 Generate with Copyback and Processor Groups

A.6.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group name taken from: fetched element ■ Processor Group Defintion taken from: target ■ Label given when action is complete: fetched element
2	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): Yes	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Definition taken from: target ■ Label given when action is complete: override

A.6.2 Example: Case 1

Scenario: You are generating element FINAPP01 at Stage 1 with copyback and you do not provide a processor group override for the action. The element exists at Stage 4 and is assigned to processor group LOPGA.

Processor executed: SIMPLGA from Stage 1

Label Assigned: LOPGA

A.7 Restore Action and Processor Groups

A.7.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists up map: Yes ■ Processor Group override: No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: target ■ Label given when action is complete: source element
2	■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: target ■ Label given when action is complete: source element
3	■ Element exists up map: Yes ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Definition taken from: target ■ Label given when action is completed: override
4	■ Element exists up map: No ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Defintion taken from: target ■ Label given when action is complete: override

A.7.2 Example: Case 1

Scenario: You are restoring element FINAPP04 to Stage 1. The element exists up the map, at Stage 3, with the processor group LOPGB. You do not provide a processor group override for the action.

Processor executed: SIMPLGB from Stage 1

Label Assigned: LOPGB

A.8 Move Action Using Move Processor and Processor Groups

A.8.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): No	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Defintion taken from: source source ■ Label given when action is complete: source element
2	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): No	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: source element
3	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: source element

Case	Given these conditions	This Processor is executed
4	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group mapped (system-defined): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: source element
5	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Defintion taken from: source source ■ Label given when action is completed: map
6	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Proccessor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: map

Case	Given these conditions	This Processor is executed
7	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) S-Move S-Delete ■ Processor Group Name taken from: target element source element source element ■ Processor Group Definition taken from: target source source ■ Label given when action is completed: map
8	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: map

A.8.2 Example: Case 1

Scenario: You are moving element FINAPP01 from Stage 1 to Stage 2. In Stage 1, the element is labeled with processor group LOPGC. The element does not exist at the target but does exist up the map, at Stage 4, with processor group LOPGC. A processor group name is not mapped at the target (next) location. Two processors are executed.

1st Processor executed: SIMPLMC from Stage 1

2nd Processor executed: SIMPLDC from Stage 1

Label Assigned: LOPGC

A.8.3 Example: Case 7

Scenario: You are moving element FINAPP01 from Stage 2 to Stage 3. In Stage 2, the element is labeled with processor group LOPGA. The element exists at the target, with processor group LOPGB, and up the map, at Stage 4. A processor group name is mapped at the target (next) location--LOPGC--causing the processor group name to change. Three processors are executed.

1st Processor executed: SIMPLDB from Stage 3

2nd Processor executed: SIMPLMA from Stage 2

3rd Processor executed: SIMPLDA from Stage 2

Label Assigned: LOPGC

A.9 Move Action Using Generate Processor and Processor Groups

A.9.1 Impact

Case	Given these conditions	This Processor is executed
1	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): No	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Defintion taken from: target source ■ Label given when action is complete: source element
2	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): No	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: target source ■ Label given when action is completed: source element
3	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: target source ■ Label given when action is completed: source element

Case	Given these conditions	This Processor is executed
4	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group mapped (system-defined): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: source element source element ■ Processor Group Definition taken from: target source ■ Label given when action is completed: source element
5	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: map source element ■ Processor Group Defintion taken from: target source ■ Label given when action is completed: map
6	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Proccessor type: T-Generate S-Delete ■ Processor Group Name taken from: map source element ■ Processor Group Definition taken from: target source ■ Label given when action is completed: map
7	■ Element exists at target: Yes ■ Element exists up map:Yes ■ Processor Group mapped (system-defined): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate S-Delete ■ Processor Group Name taken from: target element map source element ■ Processor Group Definition taken from: target target source ■ Label given when action is completed: map

Case	Given these conditions	This Processor is executed
8	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate S-Delete ■ Processor Group Name taken from: map source element ■ Processor Group Definition taken from: target source ■ Label given when action is completed: map

A.9.2 Example: Case 3

Scenario: You are moving element FINAPP01 from Stage 1 to Stage 2. The element exists at the target, labeled with processor group LOPGB, and up the map, at Stage 4. A processor group name is not mapped at the target (next) location. Two processors are executed.

1st Processor executed: SIMPLGB from Stage 2

2nd Processor executed: SIMPLDB from Stage 1

Label Assigned: LOPGB

A.9.3 Example: Case 5

Scenario: You are moving element FINAPP01 from Stage 2 to Stage 3. The element at Stage 2 is labeled with processor group LOPGB. The element does not exist at the target location but does exist up the map, at Stage 4. A processor group name is mapped at the target (next) location--LOPGC. Two processors are executed.

1st Processor executed: SIMPLGC from Stage 3

2nd Processor executed: SIMPLDB from Stage 2

Label Assigned: LOPGC

A.10 Transfer Action Using Move Processor and Processor Groups

Note: As you look through the first eight lines of this table, you will notice that similar sets of conditions can produce different results. This is due to a change in inventory component (such as type or system). One set of conditions--labeled with the letter A in the table--reflects a transfer in which the source and target inventory components are the same. A second set of conditions--labeled with the letter B--reflects a transfer in which the source and inventory components are not the same. Compare lines A1 and B1, A2 and B2, etc. Although the conditions for executing the actions are similar, the results differ.

The last four lines of the table present unique sets of conditions for the Transfer action.

A.10.1 Impact

Case	Given these conditions	This Processor is executed
1(A1)	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given when action is complete: source element
1(A2)	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: source ■ Label given when action is complete: source element

Case	Given these conditions	This Processor is executed
2(B1)	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: target default
2 (B2)	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: target default
3 (A3)	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group mapped (sysstem defined): No ■ Processor Group Change: No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: target element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: target element
3 (A4)	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: target element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: target element

Case	Given these conditions	This Processor is executed
4 (B3)	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: target element
4 (B4)	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given after action is completed: target element
5	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: source ■ Label given when action is completed: override
6	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: source ■ Label given when action is completed: override

Case	Given these conditions	This Processor is executed
7	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group mapped (system-defined): Yes ■ Processor Group Change: Yes	■ Target (T)/Source (S) Processor type: S-Delete (PG chg) S-Move ■ Processor Group Name taken from: target element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: override
8	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group mapped (system-defined): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: S-Delete (PG chg) S-Move ■ Processor Group Name taken from: target element source element ■ Processor Group Definition taken from: source source ■ Label given when action is completed: override

A.10.2 Example: Case 1 (A1)

Scenario: You are transferring element FINAPP01 from Stage 1 to Stage 3. In Stage 1, the element is labeled with processor group LOPGA. The element does not exist at the target but it does exist up the map, at Stage 4, labeled with the processor group LOPGA. You do not provide a processor group override for the action.

Processor executed: SIMPLMA from Stage 1

Label Assigned: LOPGA

A.10.3 Example: Case 7

Scenario: You are transferring element FINAPP01 from Stage 1 to Stage 3. In Stage 1, the element is labeled with processor group LOPGA. The element exists at the target, at Stage 3 and labeled with the processor group LOPGA. You provide a processor group override for the action--LOPGC--causing the processor group name to change. Two processors are executed.

1st Processor executed: SIMPLDA from Stage 3

2nd Processor executed: SIMPLMA from Stage 1

Label Assigned: LOPGC

A.11 Transfer Action Using Generate Processor and Processor Groups

Note: As you look through the first eight lines of this table, you will notice that similar sets of conditions can produce different results. This is due to a change in inventory component (such as type or system). One set of conditions--labeled with the letter A in the table--reflects a transfer in which the source and target inventory components are the same. A second set of conditions--labeled with the letter B--reflects a transfer in which the source and inventory components are not the same. Compare lines A1 and B1, A2 and B2, etc. Although the conditions for executing the actions are similar, the results differ.

The last four lines of the table present unique sets of conditions for the Transfer action.

A.11.1 Impact

Case	Given these conditions	This Processor is executed
1(A1)	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: source element ■ Processor Group Defintion taken from: target ■ Label given when action is complete: source element
1(A2)	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: target ■ Label given when action is complete: source element

Case	Given these conditions	This Processor is executed
2(B1)	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): No	■ Target (T) /Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target default ■ Processor Group Definition taken from: target ■ Label given when action is completed: source element
2 (B2)	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group override (client): No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target default ■ Processor Group Definition taken from: target ■ Label given when action is completed: target default
3(A3)	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is completed: target element
3 (A4)	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is completed: target element

Case	Given these conditions	This Processor is executed
4 (B3)	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: target element ■ Processor Group Defintion taken from: target ■ Label given when action is completed: target element
4 (B4)	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No ■ Processor Group change: No	■ Target (T)/Source (S) Proccessor type: T-Generate ■ Processor Group Name taken from: target element ■ Processor Group Definition taken from: target ■ Label given when action is completed: target element
5	■ Element exists at target: No ■ Element exists up map: Yes ■ Processor Group override (client): Yes	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Definition taken from: target ■ Label given when action is completed: override
6	■ Element exists at target: No ■ Element exists up map: No ■ Processor Group override (client): Yes	■ Target (T)/Source (S) Processor type: T-Generate ■ Processor Group Name taken from: override ■ Processor Group Definition taken from: target ■ Label given when action is completed: override

Case	Given these conditions	This Processor is executed
7	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group Name taken from: target element override ■ Processor Group Definition taken from: target target ■ Label given when action is completed: override
8	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): Yes ■ Processor Group change: Yes	■ Target (T)/Source (S) Processor type: T-Delete (PG chg) T-Generate ■ Processor Group Name taken from: target element override ■ Processor Group Definition taken from: target target ■ Label given when action is completed: override
9 (B1)	■ Element exists at target: Yes ■ Element exists up map: No ■ Processor Group override (client): No ■ Processor Group Change: Yes	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: source ■ Label given when action is completed: target default
9 (B2)	■ Element exists at target: Yes ■ Element exists up map: Yes ■ Processor Group override (system-defined): No ■ Processor Group Change: Yes	■ Target (T)/Source (S) Processor type: S-Move ■ Processor Group Name taken from: source element ■ Processor Group Definition taken from: source ■ Label given when action is completed: target default ■ Sync required

A.11.2 Example: Case 1 (A2)

Scenario: You are transferring element FINAPP01 from Stage 1 to Stage 3. The element exists at Stage 1 with the processor group LOPGA. The element does not exist at the target or up the map. You do not provide a processor group override for the action.

Processor executed: SIMPLGA from Stage 3

Label Assigned: LOPGA

A.11.3 Example: Case 8

Scenario: You are transferring element FINAPP01 from Stage 1 to Stage 3. The element exists at Stage 1 with processor group LOPGB. The element exists at the target, with processor group LOPGB, but does not exist up the map. You provide a processor group override for the action--LOPGC-- causing the processor group name to change. Two processors are executed.

1st Processor executed: SIMPLDB from Stage 3

2nd Processor executed: SIMPLGC from Stage 3

Label Assigned: LOPGC

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